2020 Census User Experience Survey Report

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Abstract: This report documents findings from a follow up survey to measure the public's satisfaction with the online 2020 Census questionnaire. The 2020 Census was the first U.S. census to use an online questionnaire as the primary mode of response. Weighted estimates suggest that approximately 85% of the public was somewhat or very satisfied with their online census experience. The level of satisfaction was associated with characteristics of the respondent, such as whether the respondent reported early, used a mobile device, or used their Census ID. Satisfaction was not related to the design of the online census questionnaire or the questionnaire content. The results suggest some possible improvements to the census, such as allowing respondents to report for multiple residences in one questionnaire as opposed to separate sessions. The results also provide new avenues for research to determine whether there are relationships between coverage errors and how the respondents answer the online census, e.g., whether they use their Census ID or mobile device.

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Executive Summary

The 2020 Census was the first U.S. census to use an online questionnaire as the primary mode of response. A census response was required for each residential address in the U.S. and over 79 million responses were received online. The census questionnaire collected basic information for each person living at the address, including the telephone number of the respondent, as well as data on the address itself, such as whether it was owned, rented, or unoccupied. The questionnaire took, on average, 10 minutes to complete. Data collection began in earnest on March 12, 2020 when many U.S. residences received a mailed letter notifying them of the census obligation. The letter provided the URL for the online questionnaire and the Census ID, which was the login credential needed to access a personalized census questionnaire for the address. Some addresses also received a paper questionnaire in the initial mailing. The last day for census data collection was October 15.

Between August and November 2020, a separate online survey, the 2020 Census User Experience Survey, was fielded to measure respondent satisfaction with the 2020 Census online questionnaire. The sample for this survey included 153,000 addresses where the respondent answered the census online and provided a cell phone number. Up to three text messages were sent to those phone numbers, encouraging a response to the User Experience Survey. Nearly 9,000 respondents accessed the survey while a little over 8,000 completed all or some of the 2 to 3-minute survey. Almost all of the respondents (93%) completed it using a mobile phone.

The User Experience Survey data suggests that 85% of the respondents who completed their 2020 Census online were satisfied with their experience and less than 5% were dissatisfied with the experience. We found that satisfaction was associated not so much with the design of the online census questionnaire or the questionnaire content but rather with characteristics of the respondent, such as whether the respondent reported early, used a mobile device, or used their Census ID.

For example, people who completed their census early in the operation reported being more satisfied than those who completed their census later in the operation. Compared to dissatisfied respondents who reported earlier, dissatisfied respondents who completed the census later were more likely to report that they (i) had difficulty with some of the questions; (ii) did not want to share this information with the government; and (iii) did not want to share information about other people in their household. Because the census questions did not differ over the course of the operation, these finding suggests that respondents who report later in the census operational cycle might be different from those who report earlier.

Respondents who used a larger screen, like a PC or laptop, reported being more satisfied with the online 2020 Census than those who used a smaller device like a mobile phone. While on the surface this finding could suggest there were mobile design issues, we did not find those differences in the reasons given for being dissatisfied. Or, put another way, the mobile design

of the online census questionnaire worked well for respondents. For if it had not, we would expect to gather more mobile responders reporting difficulty in reading questions, fitting their answers in the spaces provided, or difficulty in selecting or changing answers, etc. We did not.

Respondents who used their Census ID (from the letter or postcard) to access their online census questionnaire reported being more satisfied than those who did not enter their Census ID when answering the online census. Dissatisfied respondents who did not use their Census ID were more likely to report that they did not want to share information about others in their household, which again is suggestive that the type of respondent who doesn't use their Census ID has different concerns than the type of respondent who does.

The research also attempted to investigate why respondents who didn't use their Census ID broke off more often than respondents who used their Census ID. Based on the data collected, we do not believe these breakoffs had to do with anything in the online 2020 Census questionnaire as we found no evidence that pointed to problems with the questionnaire for those individuals. Rather people who did not or could not find their Census ID are more likely to break off regardless of the questionnaire experience as we observed a higher breakoff rate in the User Experience Survey for respondents who did not use their Census ID in the 2020 Census.

Perhaps one of the more interesting findings from this research is that we found respondents who reported less satisfaction with their census experience, who broke off, who did not use a Census ID, or who used a mobile phone to answer the online 2020 Census were more likely to report that someone in their home was not counted in the census. For future censuses, it might be possible to ask a satisfaction question immediately after completing the census and then follow up with additional questions to find any missed people if the respondent was dissatisfied, used a mobile phone and/or did not use a Census ID.

Finally, this research identifies some screen designs and question wording that might be candidates for further research. These include working on the race and Hispanic origin questions and potentially the address collection screen. Data suggest that allowing the respondent to identify corrections to addresses on our Census Bureau address inventory, and to pause and resume the census questionnaire could also be positive design modifications. New ideas including expanding the data collection to collect information on other residences with which the respondent is associated and allowing the respondent to send individuals with whom they live a link to answer their own census could also improve census data and the user experience.

1. Introduction

For each U.S. residential address, the 2020 Census collected names and basic demographic information for each person living in the United States as of April 1, 2020. The 2020 Census also collected whether the residential address was vacant on April 1, seasonally occupied, or was no longer a residential unit. The public was encouraged to complete the 2020 Census online and over 79 million people completed the census questionnaire online for their residential address. Respondents could access their address-specific online census form using a 12-character alphanumeric login credential, called a Census ID, sent to residential addresses via United States Postal Mail or they could complete the online census without the Census ID, by entering the address where they lived on April 1.

Early in the operation, online questionnaire performance data that were internal to the Census Bureau showed many more entries without a Census ID (from hereon called non-ID) than expected. While there were no technical issues observed with the non-ID or the ID paths through the instrument, Census Bureau staff were interested in learning from users why so many of them were using the non-ID path and if there were different user experiences between the group that used their Census ID and the group that did not. This interest led a team at the Census Bureau to create the 2020 Census User Experience Survey.

Even though the impetus for the research was to explore any differences between the ID and the non-ID respondents, we expanded the scope to include several different subgroups of online respondents, such as those who used mobile devices and larger devices. This way, we could compare data, including satisfaction and dissatisfaction, across groups. This follow-up survey was fielded between August and November 2020 to a sample of census respondents who used the online census questionnaire. The follow-up survey measured the satisfaction with the online questionnaire and aimed to determine if there were usability issues, for example, with the address screen or any other aspects of the online questionnaire.

This report describes the methods and findings from the 2020 Census User Experience Survey measuring the satisfaction with the 2020 Census online questionnaire.

2. Background on the 2020 Census

2.1 Census notification and modes of reporting

The 2020 Census was address based, which meant that a respondent was to report for all occupants living or staying at the address. The U.S. Census Bureau notified the majority of American households of the 2020 Census obligation by sending out letters and postcards through the U.S. Postal Service with information instructing the household occupant to respond to the census. In the correspondence, the URL and the Census ID were included. Residential addresses received at minimum two different mailings, and if the occupants waited to respond,

they could have received up to three additional mail pieces. The mailing strategy had been tested throughout the decade preceding the census to maximize self-response.

The public could have also reported their data over the telephone or by using a paper form (mailed to approximately 20% of the addresses in the first mailing and all residences that had not reported online or by phone by a specific date).

There was also a national advertising campaign during the census timeframe to promote the census with emphasis on completing it online. Obviously, in that campaign, the Census ID was not included as the IDs were address-specific.

In July 2020, census takers started visiting addresses where no response had been received to collect the census data. However, online data collection was available throughout the entire census data collection period between March 9 and October 15, 2020. Overall, 53.5% of the census enumerations were collected online; 32.9% were collected in person; 12.3% were collected by paper; and 1.2% were collected over the telephone.

2.2 Census Questions

The online census questionnaire collected or confirmed the address of the residential unit, whether the unit was owned or rented (for occupied units), the number of people living or staying in the unit, the names of all the occupants, including the respondent's name and telephone number (if the respondent lived at the unit), and basic demographic data for each person. To collect the detailed demographic data, a "person-based" approach was used, where all demographic questions were asked about one person before moving on to the next person. These questions included each person's sex, age and date of birth, Hispanic origin, race and race details (i.e. origin/ancestry). The relationship of each person to the first occupant listed as the owner or renter was also collected. A final question asked whether any of the occupants listed on the census form lived or stayed someplace else around April 1.

The collected address information varied based on whether the respondent had the Census ID for the residence. Specifically:

- If the respondent had the Census ID, the address associated with that ID was prefilled into the first two questions in the questionnaire. Respondents had to confirm that they wanted to respond for that address, and that someone lived at the address on April 1. If the address was vacant, did not exist, or was a seasonal residence, the respondent could report that information.
- If the respondent did not have the Census ID, the questionnaire collected the address where the respondent lived.

2.3 Online questionnaire features and development

The 2020 Census online questionnaire was optimized to display correctly for both smaller devices (like mobile phones) and larger devices, like tablets, laptops, and personal computers

(PCs). For the mobile-optimization, the questionnaire displayed correctly in the portrait orientation and there was no horizontal scrolling needed to see the text. On a few screens, this meant that the display differed slightly between mobile and PC devices. For example, on the screen collecting names, the PC view displayed the name fields (First, Middle, Last name) horizontally, but the mobile view displayed the name fields vertically so that the phone could be held in the portrait view and no horizontal scrolling was needed by the respondent.

Data were saved as respondents entered the information into the online questionnaire. After 15 minutes of nonuse, the online questionnaire would logout for privacy reasons. While data were saved in the Census Bureau's database as respondents entered the information into the online form, respondents could not resume their partially completed census questionnaire later. If they left the online questionnaire without finishing or if they left it for 15 minutes or more, they would have to start over.

Variations of the online questionnaire had been tested mid-decade using smaller-scale field tests which were either nationally representative or focused on particular regions of the country. Prior to the field tests and the 2020 Census itself, the online questionnaires were tested inhouse for interface, flow, question, and input and output errors. They also underwent usability testing with the public on multiple types of devices. Usability testing was conducted with one-on-one sessions where volunteers from the public would complete the online form and provide oral, and sometimes written, commentary on the experience while being observed by a researcher.

3. 2020 Census User Experience Survey Methodology

3.1 Questionnaire Development

The 2020 Census User Experience Survey (Attachment A) was a short online survey, gathering satisfaction data from respondents who answered the 2020 Census online. It was developed and fielded using the Qualtrics platform. Survey questions and response options were developed by staff in the Center for Behavioral Science Methods (CBSM) with input from decennial census staff. CBSM staff used information collected during usability testing throughout the prior decade to create the questions and response choices. The survey gathered overall self-reported satisfaction with the online questionnaire, and the reasons why respondents were satisfied or dissatisfied. The response choices for the reasons were closed-ended with an other specify category. To explore the higher than expected use of the non-ID census questionnaire, specific satisfaction questions were asked about the mail material, the ID, and the address data collection screens. Because a census breakoff was often associated with a subsequent attempt to complete the census, some questions asked for the number of times the respondent attempted to complete the census online and why they accessed the online census more than once. Staff included a question about the respondent's assessment of whether

everyone was counted in the census. Finally, the questionnaire offered respondents an opportunity to share any other feedback they had about filling out the 2020 Census.

Screenshots of the 2020 Census online questionnaire, tailored to the device the respondent used in the 2020 Census, were embedded into the 2020 Census User Experience Survey to help remind respondents of what the questions looked like. (While the screenshots were visible to the respondent, unfortunately they are not displayed in the Qualtrics printout in Attachment A.)

CBSM staff cognitively and usability tested the 2020 Census User Experience Survey with Census Bureau staff and a handful of individuals from the public who completed their census questionnaire online.

Unlike the 2020 Census, respondents to the 2020 Census User Experience Survey could partially complete and return later to finish their survey where they had left off. They did not have to start over if they left the survey prematurely. No one was asked to enter a Census ID or authentication code to access the survey either. Unlike the 2020 Census, the survey was only available in English. There was not enough time to translate the questions and response choices into other languages.

3.2 Survey Sample

In addition to an indicator of whether the respondent used a Census ID or not, we included:

- "completes" (those who got to the end of the online questionnaire and selected the submit button) and "breakoffs" (those who broke off before submitting their census – they could have also finished the census, but just not selected the submit button);
- those who used a mobile device to complete the census and those who used a larger device, like a PC;
- those who only reported once and those who reported more than once;
- the type of enumeration area which affects how addresses received their census mailing (most of the U.S. received census mail through the U.S. Postal Service while a smaller group of addresses had a census package (including the paper form and the letter with the URL) dropped off at their home[1];
- those whose data matched to an address on the Census Bureau's address inventory and those whose data did not match to an address on that inventory;
- "early" responders (those who answered the census between March-June) and "late" responders who answered between July and October; and
- a sample of respondents from all 50 states and the District of Columbia.

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[1] This latter group is referred to as the Update/Leave operation and it includes places where the majority of households may not receive mail at their home's physical location, such as small towns where mail is only delivered to post office boxes.

Initially, the universe of online census responses with a 10-digit telephone number was matched at the Census Bureau to an independent database of telephone numbers to determine which ones were likely cell phones. Each of these numbers was then assigned flags indicating whether the response was ID/non-ID and complete/breakoff. Then the list of cells phones was unduplicated. If a phone number had at least one non-ID response, regardless of if it also had an ID response, we considered that phone number to be non-ID. Similarly, if a phone number had at least one breakoff, regardless of if it also had a complete response, it was considered a breakoff. For phone numbers with multiple responses, the device type was assigned to be "mobile" if a smartphone was used in any of the attempts. That unduplicated list became the sampling frame. The sample frame was stratified by Census ID/non-ID, complete/breakoff, and early/late responders. Then within those strata, the data were sorted, and a systematic sample was selected.

Sort criteria included state; type of enumeration area; whether the address matched to an address on the Census Bureau inventory or not[2]; mobile or PC; and how many times the respondent's phone number was associated with an online census response (ideally to capture people who had responded to the census more than once – e.g., like for their primary home and seasonal home).

Some responders who completed and submitted the census and used their Census ID were sampled at a lower rate than other groups because they were not the ones identified as having possible issues with the online census questionnaire.

Table 1 displays the stratification groups, the proportional allocation based on the 2020 Census results, the actual allocation for the 2020 Census User Experience Survey, the sample size, the number of responses received, and the unweighted response rate by stratification group.

A power analysis was conducted to determine the sample size, assuming a response rate between 5 and 10% to achieve a margin of error of 5% for a characteristic that 10% of respondents might have. The number of respondents who accessed the survey was 8,912 as reported in Table 1; 8,071 answered the first question which calculated to 5.3% response rate and, due to breakoffs, the number of respondents who fully completed the survey was 6,683 which calculated to a 4.4% response rate.

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[2] All enumerations using a Census ID matched to an address on the inventory. For non-ID enumerations, the address entered was matched to the inventory and assigned a variable (matched/did not match).

Table 1: 2020 Census User Experience Survey Strata and Response Rates

Stratum	Distribution of 2020 Census online responses	User Experience Survey Distribution of Sample	User Experience Survey Sample Size	# of unique User Experience Survey Accesses	User Experience Survey Response Rate (%)
Early responders non-ID Breakoff	2.00%	3%	4,500	261	5.8
Early responders non-ID Complete	9.75%	10%	15,000	791	5.3
Early responders ID Breakoff	3.97%	4%	6,000	373	6.2
Early responders ID Complete	75.41%	49%	75,000	4,559	6.1
July responders non-ID Breakoff	0.01%	5%	7,500	602	8.0
July responders non-ID Complete	0.07%	5%	7,500	591	7.9
July responders ID Breakoff	0.03%	3%	4,500	316	7.0
July responders ID Complete	0.60%	1%	1,500	75	5.0
August responders non-ID Breakoff	0.12%	5%	7,500	364	4.9
August responders non-ID Complete	0.56%	4%	6,000	282	4.7
August responders ID Breakoff	0.31%	2%	3,000	144	4.8
August responders ID Complete	5.80%	4%	6,000	254	4.2
September responders	0.75%	4%	6,000	179	3.0
October responders	0.62%	2%	3,000	121	4.0
Total	100%	100%	153,000	8,912	5.8

3.3 Notification Method and Field Period

The sample was notified via text message about the 2020 Census User Experience Survey and a link to the survey was included in the text. We had implied consent to use the phone number to text because on the screen collecting the phone number it said we would only use that information for official Census Bureau business. Texts were sent either at 12 noon or 6 pm

using the time zone of the address. Up to three text messages were sent, typically with two days between the first and second messages, and the third message was sent a week after the first. While everyone received the first text, only those who had not completed the User Experience Survey received additional texts. The three messages were:

1. Share your feedback about the 2020 Census online form with the U.S. Census Bureau here: URL-LINK Reply STOP to cancel
2. URL-LINK REMINDER: Census Bureau needs your help to understand how the 2020 Census online form worked for you. Reply STOP to cancel
3. Last chance: Share your experience with the 2020 Census online form. URL-LINK Reply STOP to cancel

Text notifications were sent in four waves corresponding to four groups. Our goal was to have respondents answer the survey soon after they answered the census to reduce memory error.

- The first wave was sent in August and that included the early responders and those who responded in July. All the sample matched to an address on the Census Bureau inventory.
- The second wave was sent in September and included all responders who had answered the online census in August and who matched to an inventory address.
- The third wave was sent in October and included the sample of responders who reported in September and who matched an inventory address.
- The fourth wave was sent in November and included the sample of responders who reported in October as well as earlier responders who did not match to an address on the Census Bureau address inventory[3].

To access the survey, the recipient clicked the link in the text and was taken to the first page in the User Experience Survey. There was no login information needed other than the personalized link in the text. According to the embedded data collected in the Qualtrics instrument, 93% of the respondents completed the survey on a mobile device, and the remainder on a larger device.

3.4 Research Questions

One goal of the survey was to determine the overall satisfaction with the 2020 Census online questionnaire and the factors that affected that satisfaction. Specifically, we examined whether self-reported satisfaction was related to characteristics of the respondent or how they interacted with the online 2020 Census. We present the tabulated reasons why respondents were satisfied or dissatisfied. We were particularly interested in whether respondents were

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[3] We held off sending texts to the sample with addresses that did not match our address inventory until after the door-to-door portion of the census was over. We did not want a respondent to receive a text message implying they completed the census and then a knock at the door from a census taker trying to collect census data.

dissatisfied because they could not find their Census ID on the paper mail, or whether some aspect of the online survey caused dissatisfaction. For the group of respondents who did not use their Census ID, we documented the reasons for not using that ID as collected by this survey.

Another goal was to establish whether there was a specific reason for breakoffs – or if that reason differed for people who used their Census ID and for people who did not use their Census ID. For the group of respondents who broke-off, we attempted to determine why they broke-off and whether it was because of questions in the instrument, technical issues, or because they did not know the answer to the questions and had to start over later.

We took the opportunity of the survey to add a third goal, and that was to evaluate whether satisfaction was related to possible person-level omissions or duplication. If we could measure satisfaction in real time, that is immediately after the respondent completed the census, we might be able to target households with possible coverage error and make interventions to ensure everyone was counted at the correct location.

Finally, we tabulated and presented general comments about the 2020 Census online questionnaire and highlight areas for improvement.

3.5 Analysis Methods

In the analysis, we used normalized weighted data, including when we conduct statistical comparisons across groups. The weights were calculated adjusting for the sampling proportion and nonresponse, rescaled to weight to the total sample of 153,000. We conducted the analysis using normalized weights because using the very large nationwide weights made all the comparisons significantly different. The only data that are presented unweighted are the results of the write-in entries.

In the analysis, we often compare satisfaction across the stratification and sorting groups including: Census ID and non-ID; early and late responders; completes and breakoffs; PC and mobile 2020 Census users. We determined what characteristics affect satisfaction using logistic regression models and Chi-square tests of independence. In some Chi-square tests we then used standardized residuals (over $|2|$) to identify which cells contributed to the significant results (Sharpe, 2015; Delucchi, 1993; and Agresti, 2007).

There were a lot of opportunities in the User Experience Survey for respondents to provide comments. Typically, each question would have a close-ended list of response options and then the last response choice would allow for open-ended responses from the respondent. For these questions, the open-ended data were coded into categories in Excel by a CBSM staff member and reviewed by the primary author before summarizing in this report. The categories were developed based on inductive and deductive approaches to coding. That is, they were based on the author's review of the data themselves, as well as feedback from prior rounds of usability testing of the 2020 Census. Based on the frequencies in each category, most of these
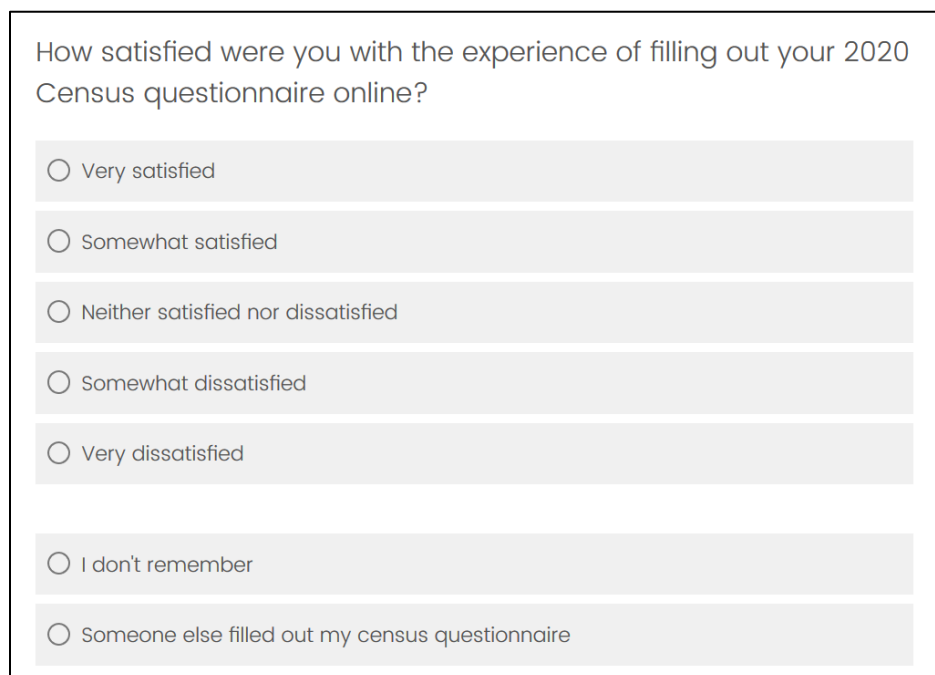
open-ended responses were back-coded into one of the closed-ended options. We employed a similar strategy for the final open-ended question where respondents could provide more general comments about their experience filling out the 2020 Census. However, because there were no closed-ended response options for that question, there was no back-coding. For that question, a more detailed description of the coding can be found in section 5.8.2.

4. Limitations

4.1   Fallibility of memory

The survey gathered the feedback on the census experience sometimes months after the respondent answered the census. Due to the lag in time between when the census was completed by the respondent and when these satisfaction measures were collected, they might have forgotten about or misremembered their experience.

Within the satisfaction survey, a few items included a specific response category labeled "I don't remember." The first question asked respondents how satisfied they were with filling out the census online (Figure 1) and around 3% reported that they did not remember their 2020 Census online experience.

How satisfied were you with the experience of filling out your 2020 Census questionnaire online?

○ Very satisfied

○ Somewhat satisfied

○ Neither satisfied nor dissatisfied

○ Somewhat dissatisfied

○ Very dissatisfied

○ I don't remember

○ Someone else filled out my census questionnaire

Figure 1. Question 1 in the 2020 Census User Experience Survey
Source: 2020 Census User Experience Survey

Mid-way through the survey a question asked if they used a Census ID or not (Figure 2) and 19% of 6,968 respondents reported that they did not remember how they entered the census online questionnaire. Memory of using a Census ID was related to respondent characteristics.

Using the Chi-square statistic, we found those who said they did not remember using their Census ID were more likely to be:

- mobile users (versus PC users) ($\chi^2(1)=401.1$, p<.01);
- non-ID users ($\chi^2(1)=799.0$, p<.01);
- early responders ($\chi^2(4)=97.9$, p<.01); and
- breakoffs ($\chi^2(1)=30.5$, p<.01).

The first screen of the census questionnaire asked you to log in. Here is an example of the log in screen.

Please Log In

Use the materials we mailed to you or left at your door. All the information that you provide will remain confidential.

Where can I find my 12-digit Census ID?

Please enter the 12-digit Census ID found in the materials we mailed to you or left at your door.

☐ - ☐ - ☐

Login

If you do not have a Census ID, click here.

How did you log in?

○ I entered an ID that was mailed to me or left at my door

○ I clicked on, "If you do not have a Census ID, click here"

○ I don't remember

Figure 2. Login question in the 2020 Census User Experience Survey (for mobile respondents)
Source: 2020 Census User Experience Survey

Because we had auxiliary information on the dataset indicating whether respondents actually did use their Census ID to answer the census, we could examine reporting accuracy of the question about whether they used their Census ID. There was quite a bit of error. Using 5,852 respondents who responded only once, nearly 4% of the Census ID responders reported that they did not use an ID while 34% of the non-ID responders, for whom never entered data using a Census ID, reported that they did use an ID.

These data demonstrate that some people's memories of the 2020 Census online experience were flawed. Memory retrieval issues were greater for non-ID respondents, those who used their mobile phone, and who reported earlier in the census cycle. While we can

report these recollection issues, we are uncertain about how those issues affected satisfaction answers within the survey. Future user experience surveys should occur immediately after the respondent completes the census.

4.2   Representativeness of the sample using texting as the notification method

The population sampled for the User Experience Survey did not include 2020 Census online respondents who provided a landline or did not provide a phone number. However, we did not expect to find any differences in user experience between those populations based on our findings from the intercensal usability testing where these user groups did not report different issues.

5. Results

5.1   Overall Satisfaction

Respondents were satisfied with their experience completing the 2020 Census online as shown in Figure 3, with 75 percent of respondents reporting that they were very satisfied and 11 percent reporting that they were somewhat satisfied with the experience. About 3 percent were not satisfied and about 7 percent were neither satisfied nor dissatisfied. A half percent reported not being the person who completed the online questionnaire (even though their telephone number was listed as the main contact number for the census response.)
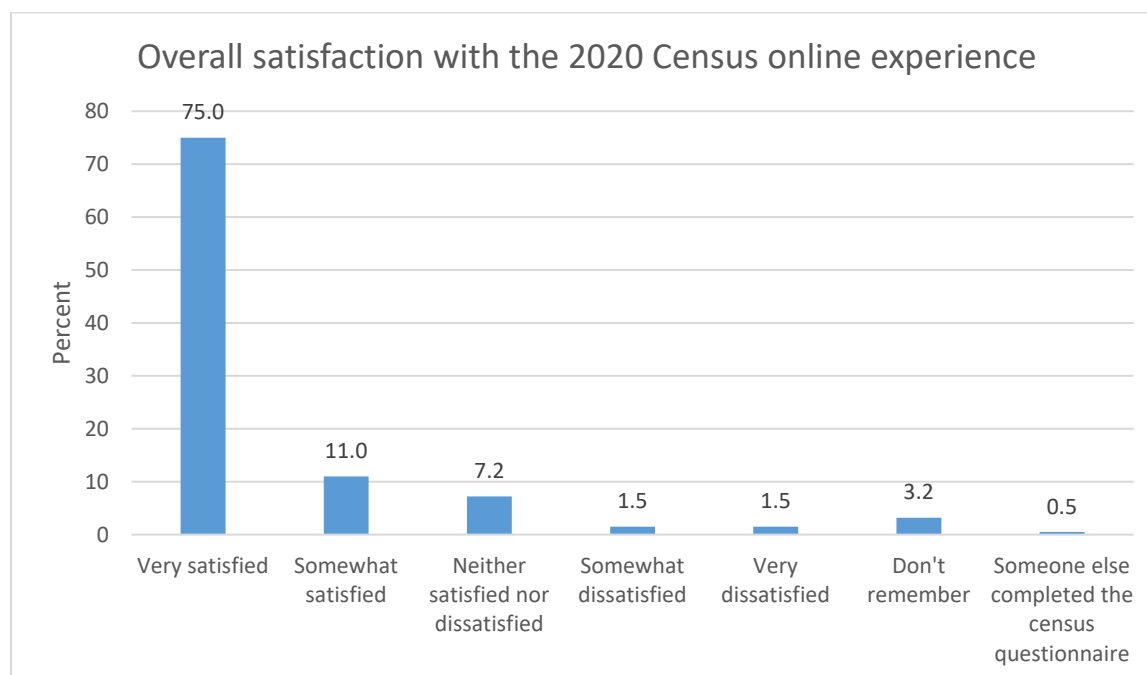

Figure 3. Overall satisfaction with the online 2020 Census experience
Source: 2020 Census User Experience Survey (n=8,071, weighted data presented)

Respondents who reported being satisfied or dissatisfied were asked why. Analysis of the reasons follow in the next two subsections.

5.1.1 Reasons for satisfaction

Figure 4 includes reasons for satisfaction with the online 2020 Census questionnaire experience, and the percent of respondents who reported those reasons. Each person could report multiple reasons. Generally, respondents liked that this census offered an online reporting option and that the option was easy to use. The majority of satisfied respondents were also glad to be counted in the census and liked that not too many questions were asked.
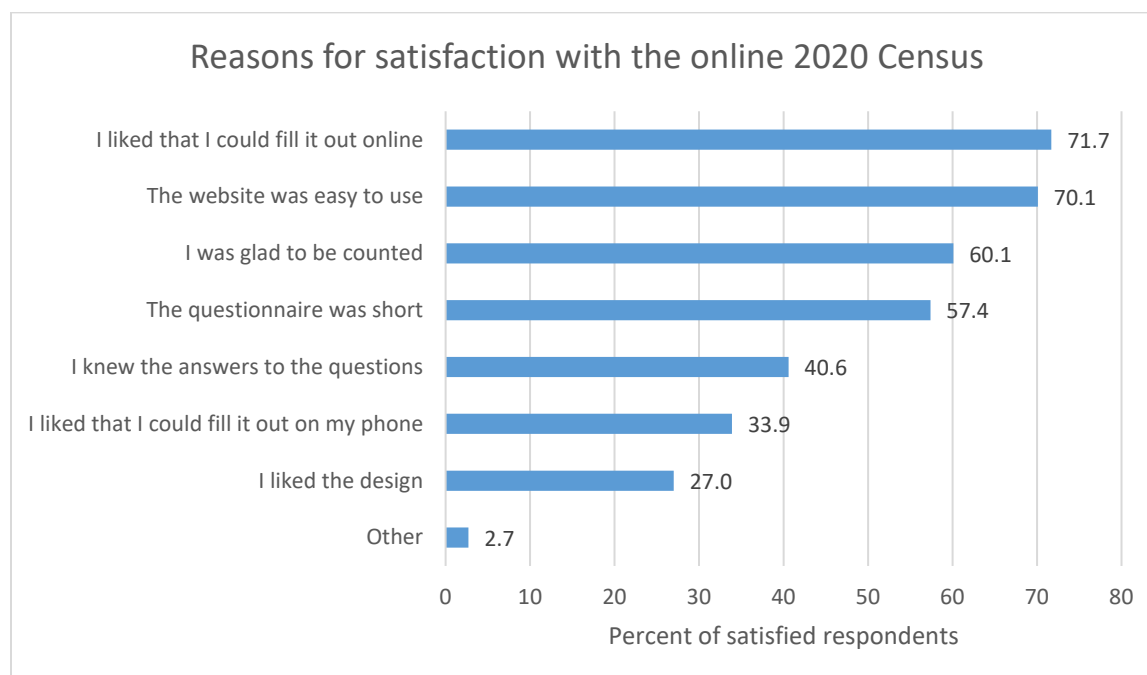

Figure 4. Reasons for satisfaction with the 2020 Census online experience
Source: 2020 Census User Experience Survey (n=6,498, weighted data presented)

Respondents who selected "Other" could include a text entry. Analysis of these write-ins did not reveal a robust set of new reasons. The contents of these write-ins included political comments (including citizenship comments), comments on census takers coming to their home, race and Hispanic origin questions comments, and comments that the census asked for too much information, or not enough information.

5.1.2 Reasons for dissatisfaction

Figure 5 includes reasons for dissatisfaction with the online 2020 Census questionnaire experience, and the percent of respondents who reported those reasons. Each person could report multiple reasons.
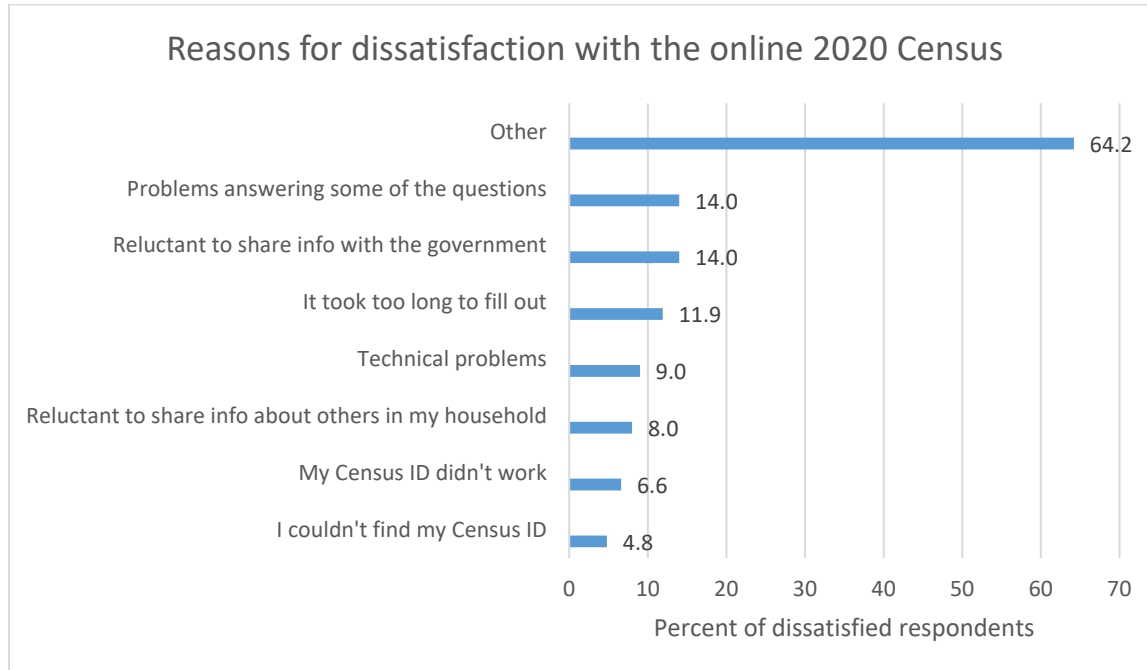
Reasons for dissatisfaction with the online 2020 Census

Reason	Percent
Other	64.2
Problems answering some of the questions	14.0
Reluctant to share info with the government	14.0
It took too long to fill out	11.9
Technical problems	9.0
Reluctant to share info about others in my household	8.0
My Census ID didn't work	6.6
I couldn't find my Census ID	4.8

Percent of dissatisfied respondents

Figure 5. Reasons for dissatisfaction with the 2020 Census online experience
Source: 2020 Census User Experience Survey (n=358, weighted data presented)

As shown in Figure 5, over half of the respondents who reported being dissatisfied with the online 2020 Census entered their own reason for their dissatisfaction. The open-ended responses provided, when the "Other" response option was selected, identified several additional reasons why respondents were dissatisfied. One particular comment that over a third of the respondents had was about not being sure if they were counted correctly (that includes being counted at the wrong place, being missed altogether, or being counted multiple times). These types of comments included reporting that:

- a census taker came to their home to do a census count – which implied to them that their census response had not gone through;
- they responded more than once – whether that was online or with a census taker;
- there were problems with multiple mailings with different addresses for the same property, or that they lived at multiple properties and had difficulty reporting for each one; and
- they moved or that they were renters and did not know whether they were included or how to include themselves in the census.

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As shown in Figure 5, 14 percent of respondents who were dissatisfied reported that they had problems with some of the questions. The survey collected information on which questions were problematic and why they were problematic (presenting a closed-ended list of possible reasons for each question as well as an open-ended "other" response option). All questions were mentioned as problematic at least once as shown in Figure 6.
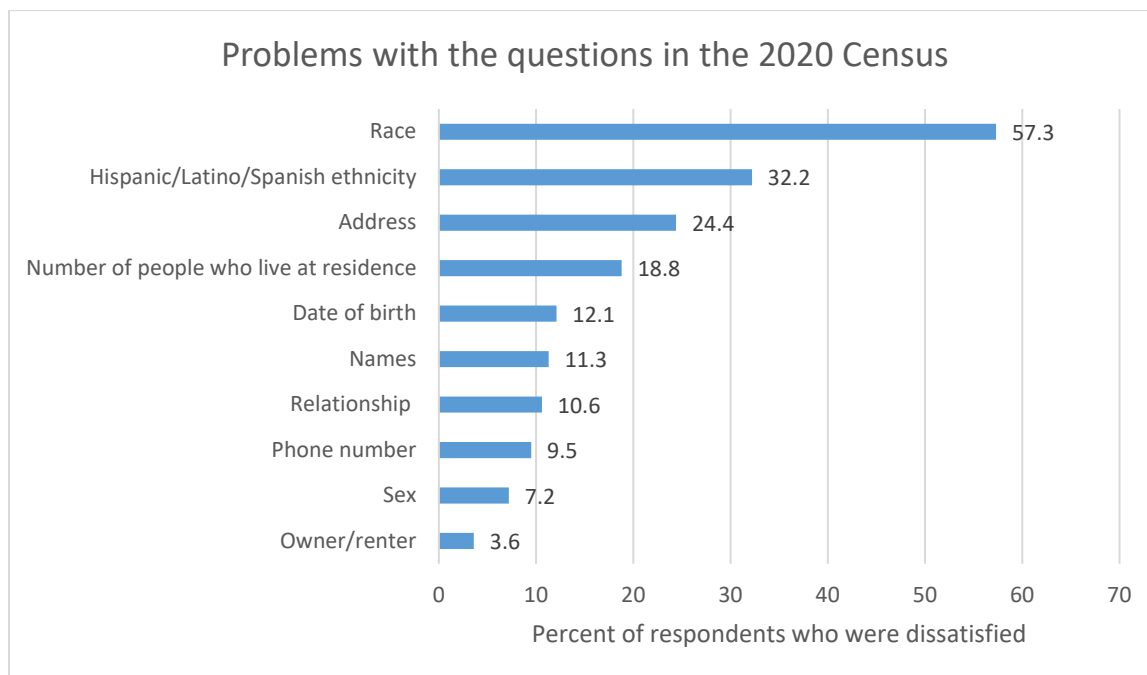
Problems with the questions in the 2020 Census

Question	Percent
Race	57.3
Hispanic/Latino/Spanish ethnicity	32.2
Address	24.4
Number of people who live at residence	18.8
Date of birth	12.1
Names	11.3
Relationship	10.6
Phone number	9.5
Sex	7.2
Owner/renter	3.6

Percent of respondents who were dissatisfied

Figure 6. Distribution of problematic census questions identified by dissatisfied census respondents
Source: 2020 Census User Experience Survey (n=56, weighted data presented)

Over half of these respondents identified the race question as one of the problematic questions, followed by 32% of them selecting the Hispanic origin.

Of the 30 respondents who reported issues with the race question and answered the follow-up question about why the question was problematic, the reasons varied and included:

- not liking separating people by race;
- asking why Hispanic origins were not races; how white and black were not ethnicities or races; not knowing if they could select more than one race; why we collect race; confusion about what to enter for the question and that Lebanese people were not white;
- mentioning their race was not listed;
- not knowing their ancestry or heritage;
- wanting to select multiple races and not sure if they could;

- not knowing how far back to go with their ancestry or heritage;
- reporting they had to enter an ancestry or heritage to get to the next question;
- not identifying with a particular ancestry or heritage; and
- reporting that they received an error message and were not sure what they did wrong.

Of the 20 respondents who reported that the Hispanic question was problematic and answered the follow-up question about why the question was problematic, more than half of them reported they did not like that the question separated Hispanics and Latinos from other groups.

Less than 16 respondents reported having problems with any of the other questions.

As shown in Figure 5, 14% reported that they did not want to share information with the government. For those who selected this reason, they too could report which questions they did not want to share with the government. For the 57 respondents who reported that they did not want to share information with the government, nine respondents selected all the questions. Race and Hispanic origin were the top two questions that the respondents did not want to share, followed by other demographic questions such as names, sex, date of birth, relationship, and phone number. And a few respondents reported not wanting to share information about the address, such as whether the address was owned or rented, and the number of people in the home.

Technical issues varied, but the top three reported reasons were: getting logged out before finishing (because they timed out); not being sure their answers were submitted; and getting error messages that they could not resolve.

Eight percent of dissatisfied respondents reported not wanting to share information about others in their household. They too were asked which data they did not want to share. All the questions were problematic.

Census ID issues were mentioned by less than 7% of the respondents. Additional information was not collected about exactly what issues respondents encountered when using their Census ID. However, some open-ended comments on other questions (specifically the last question in the survey) mentioned the Census ID. Comments suggest some respondents were frustrated that once a Census ID had been submitted, it was not possible to reenter that questionnaire to make changes. Some respondents also commented that the address associated with the Census ID was not accurate. There very well could have been slight address differences between how a respondent refers to their address and the address on the census inventory. Several respondents said the Census ID did not work. If respondents tried to use a Census ID written on the Notice of Visit that census takers left, they could have had difficulty reading the handwritten Census ID.

5.2 Predicting satisfaction and dissatisfaction

Using a logistic model and the 7,690 respondents who reported a satisfaction level (we removed anyone who reported not remembering their experience and those who reported that someone else completed the census for them from the present analysis), we modeled satisfaction as a binomial variable. We predicted satisfaction (those who reported they were either very or somewhat satisfied) against not being satisfied (those who reported they were very dissatisfied, somewhat dissatisfied, or neither satisfied nor dissatisfied). In the model we included sampling criteria (see Table 2 characteristics) as fixed effects.

Results suggest that satisfaction was related to some respondent characteristics used during sampling. Table 2 shows the weighted percent of satisfied participants by each characteristic mentioned below.

Table 2: Satisfaction rate by respondent characteristics

Characteristic	% Satisfied
Device	
PC	91%
Mobile	88%
Month of response	
March-June (early)	90%
July	83%
August	81%
September	82%
October	86%
Census ID	
Yes	90%
No	85%
Breakoff	
Yes	80%
No	90%
Location	
Hawaiian time zone (n = 33)	100%
Alaskan time zone (n = 21)	100%
Central time zone (n = 2215)	90%
Eastern time zone (n = 3367)	90%
Pacific time zone (n = 1441)	90%
Mountain time zone (n = 613)	84%
Update Leave area (n = 83)	92%
U.S. Postal Mail area (n = 7607)	89%

The type of device the respondent used to answer the census was significantly associated with satisfaction. Respondents who used a PC reported being more satisfied with their experience than those who used a mobile device (F (1, 7674)=117.7, p<.01). This finding could be associated with the design because the display was much smaller on mobile devices.

The month in which respondents answered the online census was significantly associated with satisfaction. Early responders reported being more satisfied than respondents who answered the census in August (t=3.2, p<.01). As the census questionnaire did not change over time, we suspect that this finding has more to do with the attitude of the respondent toward the census rather than the actual census experience, with people who respond right away having more interest in the census than people who wait to respond.

Use of the Census ID was significantly associated with satisfaction. Respondents who used their Census ID were more satisfied than those who did not use their Census ID (F (1, 7674)=81.7, p<.01). The questionnaire for respondents who entered an ID was nearly identical to the questionnaire for respondents who did not enter an ID, with the only difference being at the login process and the address screen.

Whether the respondent completed their 2020 Census or broke-off and did not submit it was significantly associated with satisfaction. Respondents who completed their 2020 Census were more satisfied than those who broke off before selecting submit (F (1, 7674)=603.1, p<.01). This finding is intuitive. People who had an unsatisfactory experience must have had a reason to break off.

Location of the residence also was significantly associated with satisfaction. Although only around 1% of the respondents were from an Update Leave area, those respondents reported being more satisfied than respondents who lived in U.S. Postal mail areas (F (1, 7674)=27.5, p<.01). We suspect this finding is due in part to how the people in these Update Leave areas were notified about the census. As mentioned earlier, in these areas, a package with a paper form and information about how to login to the online questionnaire was dropped off at the addresses. In mail-based areas (which is most of the U.S.) the majority of the addresses only received a letter with the URL and Census ID and the paper form followed a few weeks later to those who had not responded. Perhaps some of the people at those mail-based addresses would have chosen to report on paper had they been given the option from the beginning. It follows that Update Leave respondents who had a choice of how to respond from the get-go and chose to use the online questionnaire, might be more satisfied with their experience.

Respondents in the Mountain time zone were less satisfied than respondents in the Eastern time zone (t=16.3, p<.01), Central time zone (t=16.3, p<.01), and Pacific time zone (t=14.6, p<.01). We were initially surprised by this finding but upon further research (shown in the next section), it appears that respondents in the Mountain time zone were more likely to experience technical issues than in other areas of the U.S. It could be that there were connectivity issues in more rural parts of that time zone.

5.3   Reasons for dissatisfaction by respondent subgroup

The previous section showed that 2020 Census respondents who did not use their Census ID, those who broke off, those who used a mobile device, and those who answered the census after June were less likely to be satisfied with the 2020 Census online experience than others. In this section, we investigate whether these subgroups reported different reasons for being dissatisfied.

Comparing the breakoff and completes subgroups, we found some different reasons for dissatisfaction. Breakoffs were more likely than completes to report difficulty answering some questions (χ^2(1)=6.7, p <.01); technical problems (χ^2(1)=377.3, p <.01); it took too long to fill out (χ^2(1)=13.5, p <.01); or that their Census ID did not work (χ^2(1)=113.3, p <.01). Respondents who reported having difficulty answering some questions were asked which questions were difficult. We did not find evidence that any specific question was more or less problematic for either subgroup.

Comparing Census ID to non-ID respondents, we also found some differences in the reasons reported for the dissatisfaction. Non-ID respondents were more likely than Census ID respondents to report difficulty answering some of the questions (χ^2(1)=47.6, p <.01) or technical problems (χ^2(1)=34.2, p <.01). Non-ID respondents were also more likely to report that their Census ID did not work (χ^2(1)=230.2, p <.01) or that they could not find their Census ID (χ^2(1)=199.1, p <.01). Those two reasons make sense for this comparison because if the respondent did not have a working Census ID, they would have responded not using one. Non-ID respondents also reported that they didn't want to answer the questions for other people in their household (χ^2(1)=31.0, p <.01) more so than those who were dissatisfied but who did use their Census ID. There were no differences across subgroups in the specific questions they did not want to answer, suggesting that not wanting to report for other people in the household was not question-specific. Our data did not include indicators of how household members were (or were not) related to each other, but we suggest investigating whether respondents who did not use their Census ID were more likely to be in unrelated households. Those who used the Census ID were more likely to report that the census took too long to complete (χ^2(1)=24.6, p <.01).

We did not find evidence that dissatisfied respondents who used their Census ID were any different than non-ID respondents with regard to their attitude about sharing information with the government (χ^2(1)=2.0, p =.2) .

Respondents who used a mobile phone and reported being dissatisfied were more likely to report these reasons for dissatisfaction compared to those who used a PC: technical issues (χ^2(1)=72.9, p <.01); Census ID not working (χ^2(1)=17.5, p <.01); not finding their Census ID (χ^2(1)=221.7, p <.01) and not wanting to fill out information for others in their household

($\chi^2(1)$=25.6, p <.01). Those who used a PC or Mac were more likely to report that they had difficulty with some of the questions ($\chi^2(1)$=14.1, p <.01).

We did not find evidence that dissatisfied respondents who used a mobile device were any different than those who used a larger device with regard to their attitude about sharing information with the government ($\chi^2(1)$=0.2, p =.7) or about the length of the census ($\chi^2(1)$=0.5, p =.5).

Late responders (those who answered between July and September) reported different reasons for being dissatisfied than early responders. Late responders reported having difficulty with some of the questions ($\chi^2(1)$=4.9, p =.03), technical issues ($\chi^2(1)$=11.0, p <.01), not having their Census ID ($\chi^2(1)$=20.7, p =<.01), not wanting to share information with the government ($\chi^2(1)$=118.5, p <.01), and not wanting to report for others in their household ($\chi^2(1)$=250.5, p <.01), more so than those who were dissatisfied but answered the census earlier.

Respondents from the Mountain time zone who were dissatisfied reported technical issues more so than those respondents from the Eastern, Central or Pacific time zones who were dissatisfied ($\chi^2(1)$=33.1, p <.01). Respondents from the Mountain time zone were also more likely to report that they could not find their Census ID ($\chi^2(1)$=10.9, p <.01) and they were more likely to report that they did not want to fill out the information for other people in their household ($\chi^2(1)$=26.2, p <.01).

Respondents from the Mountain time zone who were dissatisfied were less likely to report that the survey was too long compared to those respondents from the Eastern, Central or Pacific time zones who were dissatisfied ($\chi^2(1)$=6.5, p =.01). Respondents from the Mountain time zone were also less likely to report that their Census ID did not work ($\chi^2(1)$=8.0, p <.01).

5.4   The address data collection screen

For respondents who did not use their Census ID, one of the first census questions collected the respondents' address (Figure 7) followed by a screen which asked respondents to verify the standardized address (Figure 8).   On that screen, the entered address was matched to the Census Bureau inventory and the inventory address displayed on the screen. It displayed in a standard format, using all capitals, state abbreviation, etc. The address may or may not have reflected exactly how the respondent typed in the address.

Figure 7. Address screen for a PC user in the 2020 Census
Source: 2020 Census User Experience Survey – this screen was used in the survey to jog respondent's memory of what it looked like

Figure 8. Address standardizer screen with example address
Source: 2020 Census User Experience Survey – this screen was used in the survey to jog respondent's memory of what it looked like – at the top of the image is the introductory text respondents saw

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The User Experience Survey collected information about these two address collection questions. The majority of these respondents (over 92%) were satisfied with the address collection screen.

Earlier in this report, we documented that overall dissatisfaction did not appear to be related to the address collection based on self-reported reasons for dissatisfaction. However, when asked explicitly about the address collection screen, being satisfied with the address collection screen was related to overall satisfaction ($\chi^2(1)=1107.8$, $p<.01$). Nearly half of the respondents who reported being neutral or satisfied with the address screen also reported being neutral or dissatisfied overall with their entire 2020 Census online experience. Nearly a quarter of the non-ID respondents who reported being "not satisfied" with their entire 2020 Census online experience also reported being dissatisfied with the address collection screen. Essentially, for non-ID respondents, being dissatisfied with the address collection screen was positively associated with being dissatisfied in general. However, this relationship does not imply causation.

Respondents who used their mobile device were less likely to select "very satisfied" when rating the address screen and more likely to select "very dissatisfied" compared to respondents who used their PC to complete the online census as shown examining the standardized residuals of a Chi-square statistic ($\chi^2(4)=360.2$, $p<.01$).

The standardized residuals of a Chi-square statistic showed that respondents who broke off were less likely to select "very satisfied" when rating the address screen and more likely to select "neutral" or "very dissatisfied", ($\chi^2(4)=340.8$, $p<.01$).

Results show that where a person lived (their time zone ($\chi^2(20)=269.0$, $p<.01$) and whether they lived in an Update Leave area ($\chi^2(4)=50.8$, $p<.01$) affected satisfaction with the address screen. While there were no meaningful patterns by time zone, respondents from Update Leave areas were more satisfied with the address screen than respondents in the mailout/mailback areas. This pattern matches Update/Leave respondents' overall satisfaction with the online 2020 Census. We also found some evidence that satisfaction with the address screen was associated with whether the address matched to the Census Bureau address inventory. For this analysis we collapsed satisfaction into a binomial (satisfied/not satisfied), where not satisfied included neutral and the two dissatisfied choices because there were very small cell sizes when using all five of the satisfaction categories. Specifically, respondents whose address did not match to an address on the inventory were less likely to be satisfied with the address collection screen than those whose address matched to an address on the inventory ($\chi^2(1)=81.8$, $p<.01$). One explanation could be that the address screen design made entering the correct address difficult. Perhaps if the respondent made errors entering their address, then that address would not match to the inventory. Another explanation could be that the respondent's address was unusual and a true nonmatch to the inventory. The unusual address was difficult to enter into the address screen's standard address form fields.

There were a variety of reasons for dissatisfaction with the address screen as shown in Figure 9, but the low numbers for each reason precluded any statistical tests between respondent types.
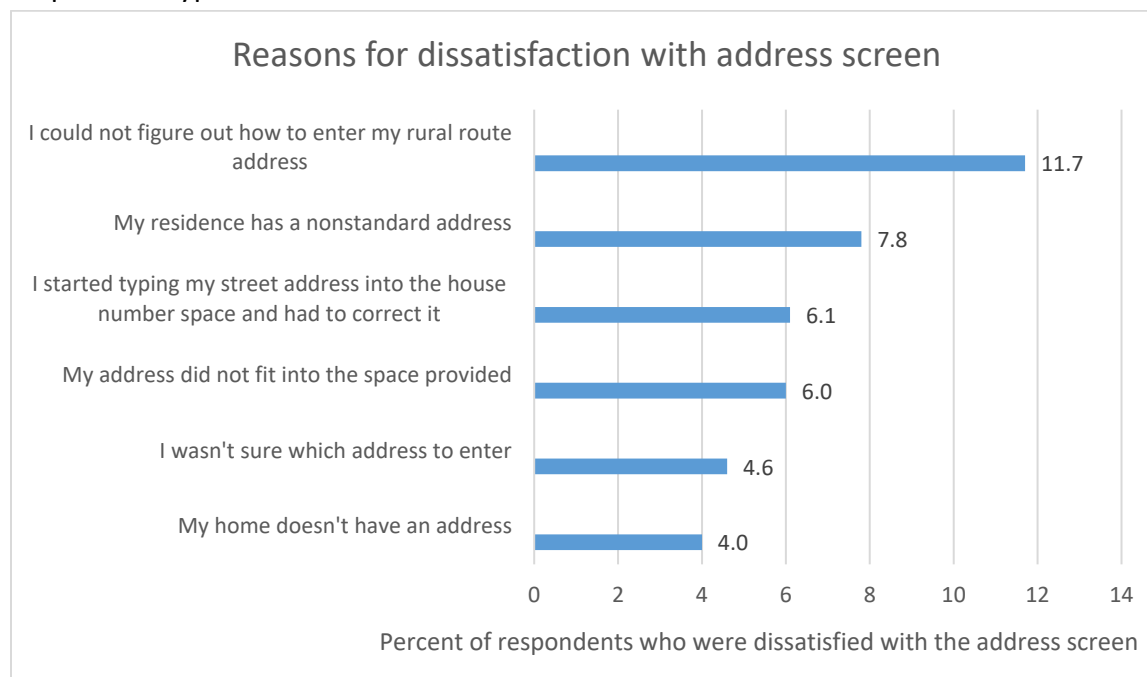

Reasons for dissatisfaction with address screen

Reason	Percent
I could not figure out how to enter my rural route address	11.7
My residence has a nonstandard address	7.8
I started typing my street address into the house number space and had to correct it	6.1
My address did not fit into the space provided	6.0
I wasn't sure which address to enter	4.6
My home doesn't have an address	4.0

Percent of respondents who were dissatisfied with the address screen

Figure 9. Reasons for dissatisfaction with the address screen
Source: 2020 Census User Experience Survey (n=98, weighted data presented)

At the standardized address screen, respondents were shown an image of a standardized address (see Figure 8) and asked if their address was reformatted correctly.   Nearly 5% of the 2,173 respondents who answered this question reported that their address was not correct. Between 33 and 42% of them reported that their city, state, or ZIP code was wrong, and 57% of them entered open-ended text about why their address was wrong. Some of the comments like "It changed Ave. to Dr. But the post office has it wrong," made sense as a real problem with the standardized address. However, many of the other responses suggested that some respondents might have thought that the address in Figure 8 was supposedly their address. Comments such as, "It is not my address" in the present tense suggest that at least this respondent misinterpreted this question. It was not possible to disentangle the responses to determine how many actually had the wrong standardized address appear in their census questionnaire, but our hypothesis is that less than 5% did, because only 5% of the respondents reported that their address was standardized incorrectly at this question.

5.5   The Census ID

As documented in an earlier section of this report, respondents who logged in using the Census ID reported higher satisfaction with their 2020 Census online experience. The Census ID was found on the letter (Figure 10), on the address side of the postcard (Figure 11), the paper form (Figure 12), and the Notice of Visit (Figure 13). The Census ID was not labeled when it was next to the bar code address label (as seen in Figures 11 & 12) to discourage someone from completing someone else's census questionnaire in the event that the mail was misdelivered. A few questions in the User Experience Survey asked respondents if they remembered how they logged in and which piece of mail they used.

For the analysis, we focused on respondents actually did use the Census ID (according to the objective data we used to stratify the sample) AND who reported remembering that they used the ID which left us with 3,873. Using weighted data, more than half these respondents (61%) reported using the letter to find their Census ID, followed by the postcard at 10%, the Notice of Visit at 5%, and then finally the paper questionnaire at 4%. However, 20% did not recall the material they used, suggesting that the paper material and the login process is not particularly memorable. For those who remembered the paper material they used to find their Census ID, over 98% of them reported that it was easy to find the Census ID, with less than a half percent reporting any difficulty finding the Census ID.
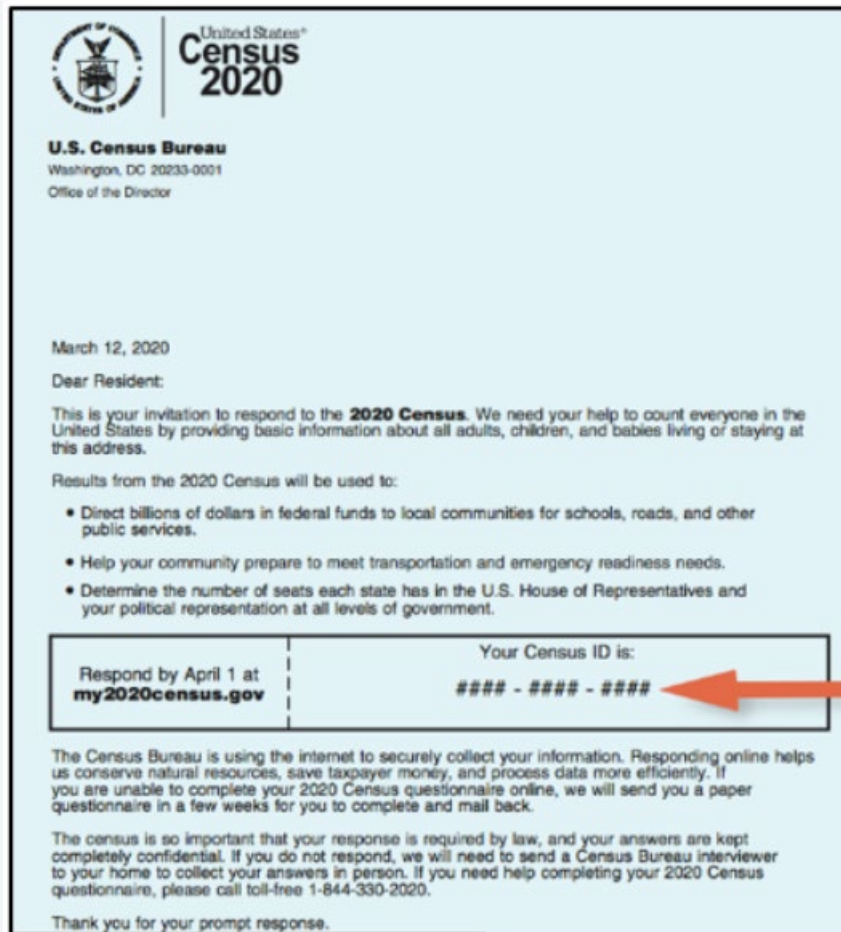
Figure 10. Example of a 2020 Census initial letter
Source: 2020 Census User Experience Survey – this image was used in the survey to jog respondent's memory of what it looked like

Figure 11. Example of a 2020 Census postcard
Source: 2020 Census User Experience Survey – this image was used in the survey to jog respondent's memory of what it looked like

Figure 12. Example of a 2020 Census questionnaire
Source: 2020 Census User Experience Survey – this image was used in the survey to jog respondent's memory of what it looked like

Figure 13. Example of a 2020 Census Notice of Visit
Note: A census taker would leave the notice of visit at the door with a handwritten Census ID.
Source: 2020 Census User Experience Survey – this image was used in the survey to jog respondent's memory of what it looked like

The User Experience Survey collected the reasons respondents did not use their Census ID. These reasons are shown in Figure 14. The most commonly reported reason was that the person no longer had the letters or postcard. The second most common reason affecting more than a quarter of the respondents was that they reported not receiving their Census ID. There was a small number of addresses nationwide that did not receive any mail, in order to measure the effect of advertising on census participation. However, we were unable to determine if these were the respondents who did not receive mail. Another possibility is that these respondents rented a room at a residence where the main occupant took care of the mail.

Reasons for not using the Census ID

Reason	Percent
I no longer had the letters or postcard with my Census ID	30.5
I never received a Census ID	26.4
I responded before I received a Census ID in the mail	19.5
I was away from home and didn't have my letters or postcard with me	14.4
I couldn't find the Census ID on the letters or postcard	8.9
I don't remember	7.3
Other	5.7
I thought if I clicked on the link I could get my Census ID	5.4
I tried to use my Census ID and it didn't work	2.7
Someone else in my household used my Census ID	1.5
The Census ID was too small to read	0.6

Percent of respondents who did not use their Census ID and who remembered that they did not use their Census ID

Figure 14. Reasons for not using the Census ID
Source: 2020 Census User Experience Survey (n=810 respondents who did not use their ID and remembered not using their ID, weighted data presented)

These reasons differed by some respondent subgroups. Breakoffs were more likely than completes to report that they thought if they clicked on the link they could get their Census ID ($\chi^2(1)$=78.1, *p*<.01). Figure 15 shows the login page for a PC user. Note there were two links: the link at the bottom of the screen took respondents into the census questionnaire, while the link in the middle took respondents to an image showing different mailing material. Breakoffs were also more likely to report they were away from their home and didn't have the letters or postcards with them ($\chi^2(1)$=15.1, *p*<.01).

Completes were more likely to report that they did not use their Census ID because they responded before they got anything in the mail, compared to breakoffs ($\chi^2(1)$=28.6, *p*<.01).

Early responders were more likely to report that they responded before they got anything in the mail using standardized residuals ($\chi^2(4)$=627.1, p<.01) and respondents who reported in October were more likely to report that they no longer had their letters and postcard ($\chi^2(4)$=164.8, *p*<.01).

Using unweighted data, we found no evidence that the type of device the respondent used to answer the Census had any relationship to any of the reasons for not using the Census ID.

Using weighted data, respondents who used a mobile device were more likely to report that they never received a Census ID ($\chi^2(1)=19.7$, $p<.01$); thought they could click on the link to get the Census ID ($\chi^2(1)=28.6$, $p<.01$); or did not remember the reason ($\chi^2(1)=22.2$, $p<.01$) compared to respondents who used a laptop, Mac or PC. Respondent who used a mobile device were also less likely to report that they responded before receiving anything in the mail ($\chi^2(1)=7.1$, $p<.01$) and were less likely to report that they no longer had the letters or postcards with the Census ID ($\chi^2(1)=11.4$, $p<.01$) compared to those who used larger devices.   There was not a large enough sample to run significance tests for Update Leave areas or for addresses that matched the Census Burau address inventory compared to addresses that did not match to the inventory.

Figure 15. Login screen for 2020 Census PC users
Note: The link "Where can I find my 12-digit Census ID?" took respondents to an image with the mail materials while the link "If you do not have a Census ID, click here." took respondents directly into the census questionnaire where they had to enter their address.
Source: 2020 Census User Experience Survey – this screen was used in the survey to jog respondent's memory of what it looked like

5.6   Multiple census completion attempts

Each Census ID could be submitted only once. However, any respondent could enter the online form without the Census ID and respond or attempt to respond more than once. A question in the User Experience Survey asked respondents how many times they filled out or attempted to fill out a census questionnaire.

Census respondents whose phone number was on multiple census records were sampled for the User Experience Survey.   Around 16% of the User Experience Survey respondents (n=1,099) had their phone number associated with more than one census response based on

the sampling data, but most of these individuals (63%) reported completing the census only one time in the User Experience Survey. While their response in the survey appears incorrect, it could be that they started a census questionnaire but had to stop prematurely and then they had to go back in later to complete it, but they considered such actions as only completing the census once.

Using weighted data, we calculated that eight percent of the User Experience Survey respondents self-reported that they filled out or attempted to fill out the census more than once. These respondents answered a follow up question attempting to determine why they responded multiple times. As shown in Figure 16, nearly 31% entered a reason not listed; 23% reported that they had to start over because their answers were not saved; 20% reported that they were not sure that the Census Bureau received their answers; nearly 17% had problems with the questionnaire, and 14% helped a family member or friend.

Reasons for multiple census responses

Category	Percent
Other	30.5
I wasn't sure if the Census Bureau received my answers	22.6
My answers were not saved, so I had to start over	19.9
I had problems with the Census questionnaire	16.8
I was helping a family member or friend with their form	14.3
My property has multiple homes on it	3.8
I was trying to report a vacant property	3.6
I was trying to report that a unit/apartment no longer exists	0.6

Percent of respondents who reported completing or attempting to complete the census more than once

Figure 16. Reasons for multiple census responses
Source: 2020 Census User Experience Survey (n=688, weighted data presented)

Analyzing the write-in responses entered from 225 respondents who chose "Other" we found that over a quarter of them were interrupted or had to look up information and their answers were not saved (the online questionnaire would time out) and so they had to start over. Another 19% of them reported that they completed the census at multiple addresses, either because the respondent owns multiple properties or because they moved and were counted at both residences. Finally, 21% reported that either they received multiple mailings

or received a visit from the census taker to complete their questionnaire again (four people said they received both).

Using a logistic model predicting the binomial satisfaction variable (satisfied/not satisfied), we found that respondents who reported accessing the census only one time were more satisfied than those who reported accessing the online census questionnaire multiple times (F (3, 6646) = 907.6, $p<.01$) when controlling for device and whether the respondent broke-off or completed the survey.

Examining only those who reported accessing the census more than once, results show that respondents who reported that they did so because they were helping a family member were more satisfied with their overall experience than those who did so for another reason (F (1, 663) = 130.4, $p<.01$). Surprisingly, the group who reported multiple times because they were not sure if the Census Bureau received their answers were also more satisfied than those who did so for another reason (F (1, 663) = 68.2, $p<.01$). Choosing one of the other categories was associated with a more negative rating of the census experiences.

5.7   Self-reports for census coverage and census completion

The User Experience Survey included questions asking respondents if they completed the census for everyone in their household. The overwhelming majority at 96% reported that they answered for everyone (this includes single-person households and multi-person households). While 2.4% reported that they did not remember, 1.9% reported that they either answered only for themselves (and not others in the household), or they answered for some people in their household, but didn't include everyone. Figure 17 displays the results.

Self-reported household coverage

Category	Percent
I live with others and I included everyone	74.0
I live alone and filled it out for myself	21.8
I live with others but only included myself	1.0
I live with others but only included some of the people I live with	0.9
I don't remember	2.2

Percent of respondents

Figure 17. Self-reported inclusion of household members on census form
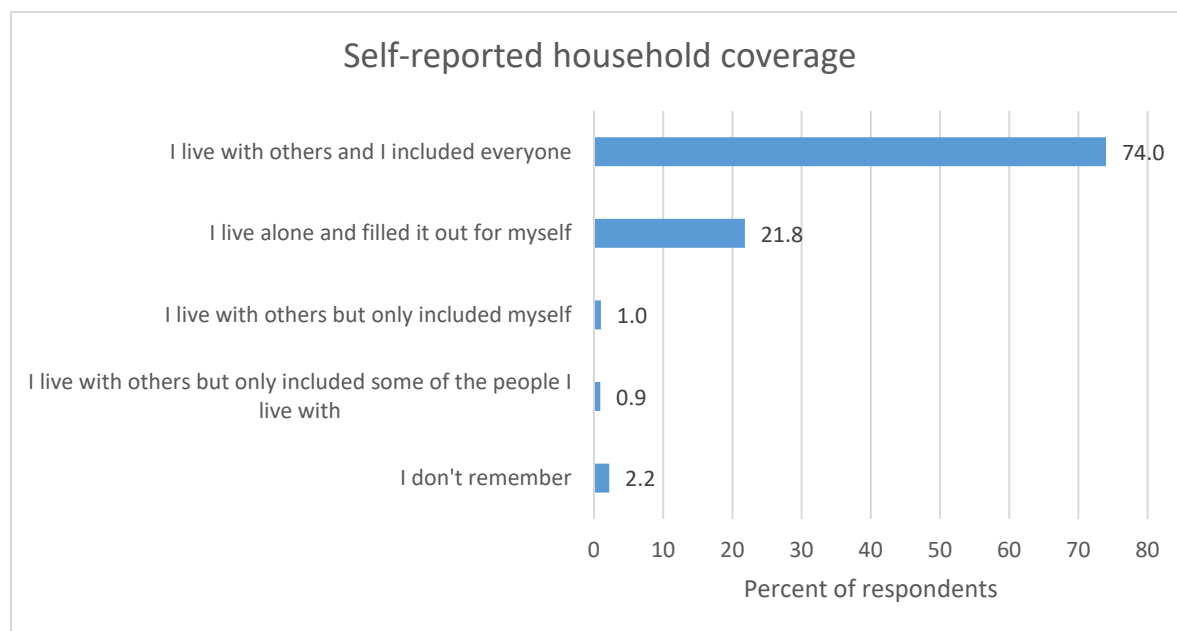**Source: 2020 Census User Experience Survey (n=6,748, weighted data presented)**

For those who reported that they did not answer for everyone, a follow-up question asked if they thought the other people responded on their own to the census. Only 37% of those respondents (n=166) reported that the other people had completed the census information separately, while the majority of the respondents reported that they either did not know or did not think the other people had completed their census. Based on these data, we estimate that census data for about 1.2% of households (using weighted data) might not include all the people who live there. There was a relationship between these households and other respondent characteristics and reported data. For example, these households were more likely to report dissatisfaction with their 2020 Census online experience ($\chi^2(1)=325.4$, $p<.01$), they were more likely to have used their mobile device to answer the census ($\chi^2(1)=184.2$, $p<.01$), they were more likely to have broken off while answering the census ($\chi^2(1)=432.2$, $p<.01$), and they were more likely to have NOT used their Census ID ($\chi^2(1)=575.6$, $p<.01$). Using a logistic model predicting households that might have missed someone, we found these four variables continued to be significant. We did not find that the location (time zone and Update Leave/U.S. Postal mail areas) of the household or when (e.g., which month) the respondent reported to be significant in the model predicting self-reported exclusion of people in the census.

The User Experience Survey included a question asking whether the respondent was able to finish their census online. Over 97% of these respondents reported that they were able to finish their census, and no reason stood out for not completing the census. Less than 1% of respondents reported each of these reasons:

- I had a problem with the questionnaire online.
- I wanted a way to save my answers and come back.
- I was too busy and decided not to finish.
- I didn't know the answer to some of the questions.
- I didn't want to answer some of the questions.

Respondents who reported finishing the census reported being more satisfied than those who did not ($\chi^2(1)=3336.8$, $p<.01$).

5.8   Other comments on the census

The last few questions in the User Experience Survey allowed for more general comments about the census.

5.8.1 Comments on the census questions for people who were satisfied with their experience

Respondents who reported that they were satisfied or neutral when rating their overall 2020 Census online experience were offered the opportunity to comment on the census questions. For each question, the response choices were identical to the ones used in the

questions for respondents who were dissatisfied. That included closed-ended responses choices and an "Other, specify" response choice where the respondent could enter more information. The write-in responses were then coded by the same CBSM researcher and reviewed by the author.

Approximately 11% of these respondents commented on one or more of the questions. The questions that generated the most and least number of comments from satisfied or neutral respondents (see Figure 18) were not that different than the ones selected by the respondents who were dissatisfied discussed in Section 5.1.2 – Figure 6. We discuss the findings for any question where more than 2% of the respondents commented (which includes race, address, and Hispanic origin.) Future reports will further examine the comments on all the questions from both satisfied and unsatisfied respondents.
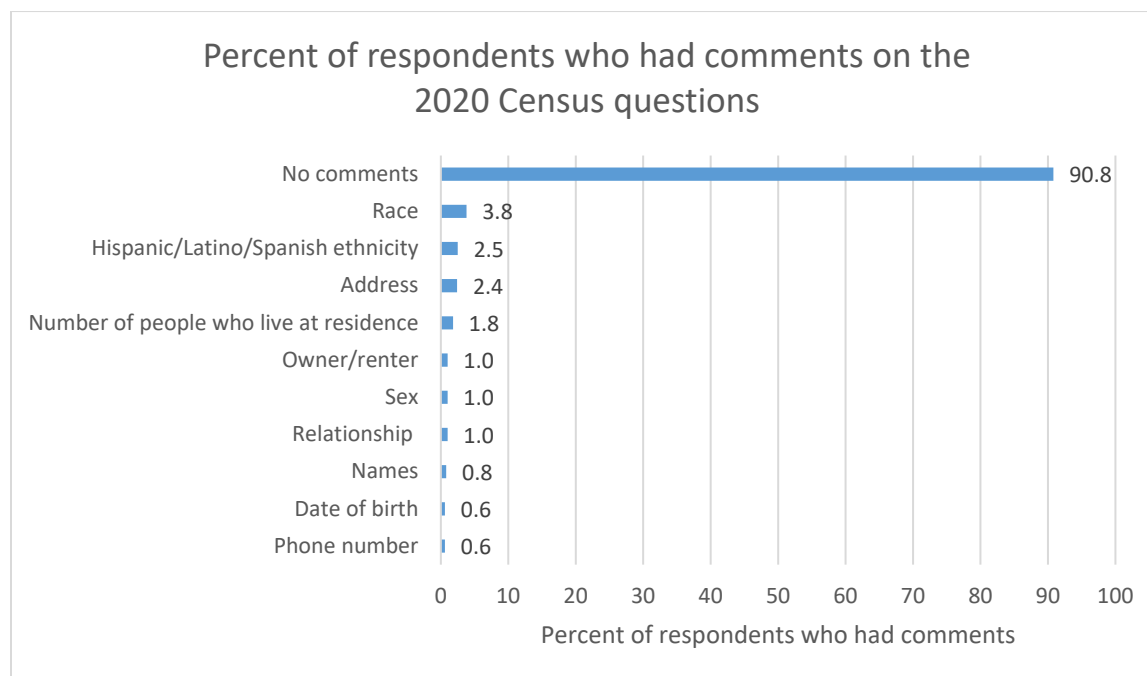

Figure 18. Distribution of comments on census questions from satisfied and neutral respondents
Source: 2020 Census User Experience Survey (n=5,716, unweighted data presented)

5.8.1.1 Race

Figure 19 shows the race question, including the response options. The comments varied but overall:

- 46% reported that they did not like separating people by race or questioned why race was needed for the census;
- 38% commented that they were dissatisfied with the choices provided;

- 17% reported that they did not know how far back to go with their ancestry or heritage;
- 16% reported not knowing why collecting race was needed;
- 15% reported that they wanted to select multiple races and were not sure if they could;
- 13% reported that they do not identify with a particular ancestry or heritage;
- 13% reported that they had to type something into the question to go to the next page;
- 12% reported that they do not know their ancestry or heritage;
- 11% reported that their race was not listed;
- 9% of the responses did not fit any particular category;
- 8% had a problem with race in general; and
- 4% commented that they were not sure how to answer the race question.

What is John Doe's race? (Help)

Select one or more boxes AND enter origins. For this census, Hispanic origins are not races.

☐ White
Enter, for example, German, Irish, English, Italian, Lebanese, Egyptian, etc.

[ ]

☐ Black or African American
Enter, for example, African American, Jamaican, Haitian, Nigerian, Ethiopian, Somali, etc.

[ ]

☐ American Indian or Alaska Native
Enter name of enrolled or principal tribe(s), for example, Navajo Nation, Blackfeet Tribe, Mayan, Aztec, Native Village of Barrow Inupiat Traditional Government, Nome Eskimo Community, etc.

[ ]

☐ Chinese

☐ Filipino

☐ Asian Indian

☐ Vietnamese

☐ Korean

☐ Japanese

☐ Other Asian
Enter, for example, Pakistani, Cambodian, Hmong, etc.

[ ]

☐ Native Hawaiian

☐ Samoan

☐ Chamorro

☐ Other Pacific Islander
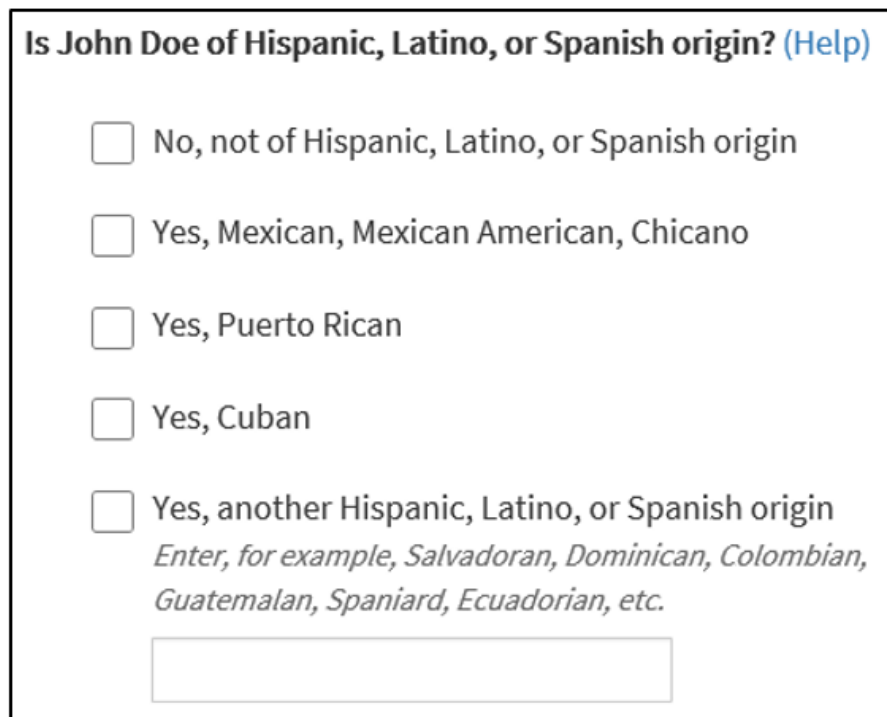*Enter, for example Tongan, Fijian, Marshallese, etc.*

[ ]

☐ Some other race
Enter race or origin.

[ ]

**Figure 19. Race question in the 2020 Census online questionnaire (with a fictitious name)
Source: 2020 Census User Experience Survey – this image was used in the survey to jog respondent's memory of what it looked like**

5.8.1.2 Hispanic origin

Figure 20 shows the Hispanic origin question. Comments on this question varied as well but were similar to the type of comments provided on the race question.   Of the 144 respondents who provided a comment, over half (59%) reported that they did not like that the question separated Hispanics and Latinos from other groups. This comment was echoed in the open-ended entries as 47% of these respondents also provided write-in information in the open-ended response option. Less than 20% of the respondents reported each of these reasons: their race/ethnicity was not listed; they did not know how to answer the question, or they did not understand the purpose of the question. Less than 10% of the respondents reported each of these reasons: their country wasn't listed; their children were born in the U.S. so they did not know how to answer the question; or made a comment on citizenship.

Is John Doe of Hispanic, Latino, or Spanish origin? (Help)

☐ No, not of Hispanic, Latino, or Spanish origin

☐ Yes, Mexican, Mexican American, Chicano

☐ Yes, Puerto Rican

☐ Yes, Cuban

☐ Yes, another Hispanic, Latino, or Spanish origin
 Enter, for example, Salvadoran, Dominican, Colombian, Guatemalan, Spaniard, Ecuadorian, etc.

Figure 20. Hispanic origin question in the 2020 Census online questionnaire (with a fictitious name)
Source: 2020 Census User Experience Survey – this image was used in the survey to jog respondent's memory of what it looked like

5.8.1.3 Address

Census ID responders saw a different address question (Figure 21) than non-ID responders (shown earlier in Figures 7 and 8). For people who used their Census ID, they confirmed the address instead of entering it. The comments on the address screen varied between the two groups.

Of the non-ID respondents, 67 provided comments on the address screen. Comments varied and there was not one particular issue that the majority of these respondents made. Some reported that the address did not fit into the space provided; some reported that they entered the street name into the street number field; some, that they had a nonstandard address or a rural route; and the rest reported confusion about where to count themselves.

Of the respondents who used their Census ID, 61 provided comments related to their address. Most of the comments were provided in the open-text field and pertained to multiple addresses and where to count themselves, how to report vacant units, incorrect addresses on the material, or being visited by census takers even though they had completed their census online. Several people commented that they received multiple mailings to their home with slightly different addresses or that the address that was on the mailing (and in the online form) was slightly incorrect – and they could not change it.
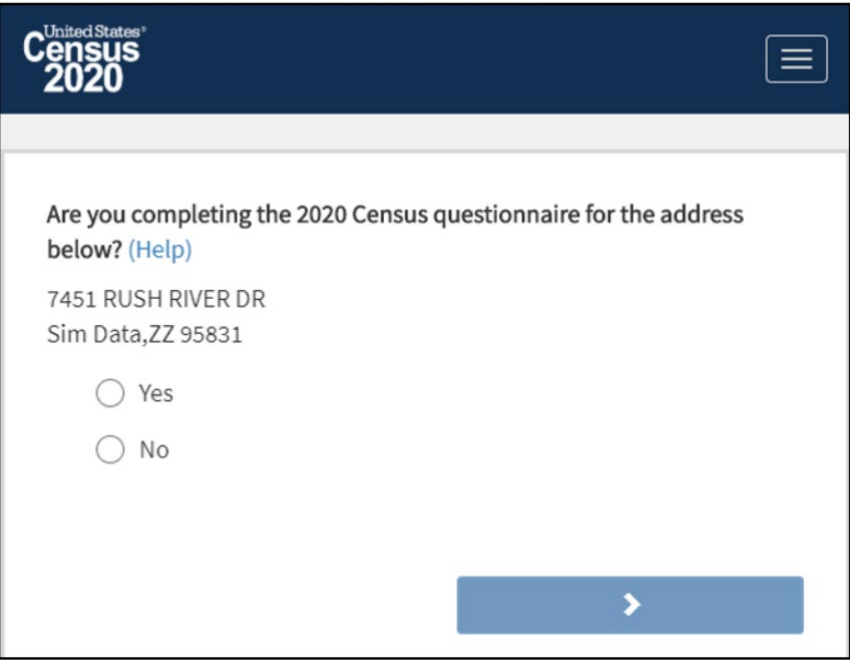

Figure 21. Address question for respondents who used the Census ID in the 2020 Census online questionnaire (with a fictitious address) Note: The text above the image "Here is an example of an address screen with a made up address" appeared in the 2020 Census User Experience Survey on the question collecting comments about the address screen for respondents who used their Census ID.
Source: 2020 Census User Experience Survey – this image was used in the survey to jog respondent's memory of what it looked like

5.8.2 Open-ended comments on the census

Using an open-ended text question at the end of the survey, we also provided an opportunity for respondents to share more about their experience filling out the 2020 Census. Respondents were presented with the question, "Is there anything else about filling out the

2020 Census that you would like to share with us." If they selected "yes," they were asked, "what else would you like to tell us?"

Of the 6,613 respondents who completed the entire survey, 570 (or 8.6%) included a response to the final question. The coding conducted with this last question differed slightly from prior coding because there were no closed-ended options.

Like the earlier coding, the method combined inductive and deductive approaches to coding. We created several themes/topics for coders to mark as present or absent in a given comment. This strategy was inductive because some of the topics were data-driven (i.e. the authors conducted a preliminary review of the responses) and deductive because other topics covered issues identified in research throughout the prior decade. For instance, separating race and Hispanic origin (Olmsted-Hawala, Nichols, 2020), feedback from other 2020 Census operations (e.g. duplicate enumeration; vacancies), the 2020 Census in the news (e.g. citizenship question), and the 2020 climate (e.g. COVID-19; politics) had been observed before. There was a total of 17 topics, in addition to a sentiment label of the comment (positive, negative, neutral, mixed) and a sentiment score (from -10 to 10). A list of topics and examples can be found below:

1. Multiple contacts at one address: e.g. multiple census IDs sent, multiple field visits, multiple reminder mailers;
2. Mover: Related to moving, e.g. a person has moved to or from address;
3. Vacancy: Home is vacant, e.g. a seasonal home, vacation home, or the occupant passed away;
4. Confirmation: Want a way to confirm response was received;
5. User Interface (UI) Design/User Experience: A survey design or technical issue;
6. Sex/Gender Question: e.g. want more gender inclusive response options;
7. Race Question: e.g. issue with race categories ;
8. Race Origin: e.g. confusion about what origin means;
9. Hispanic Origin: e.g. confusion or concern about why it is separate from race question;
10. Age/DOB: e.g. why does age matter ;
11. Who to count/where to count someone: confusion about who to count or where to count someone, e.g. a college student who was home because of COVID;
12. Citizenship Question: opinion about including or excluding a citizenship question from decennial census ;
13. "Illegal"/undocumented immigrants: mention of either term, may or may not be part of a comment about the citizenship question itself;
14. Political: Related to politics, e.g. the president, republicans, democrats;
15. COVID-19: Pandemic-related;
16. Data collection end-date: e.g. opinion about data collection end-date due to COVID-19; and

17. Suggestions: ideas for how to improve the survey in the future, e.g. user interface or question improvements (such as include a question about sexual orientation).

Two independent coders from CBSM, who did not work on the User Experience Survey, were given an explanation of each theme and shown examples of corresponding write-ins. They could select multiple themes for one comment or not select any. If a write-in did not fall into any category, the coder proposed a new one. As mentioned, they also provided a sentiment score. We met with coders a few times throughout the coding process to address any issues or concerns that arose. Prior to each meeting, we conducted interrater reliability (IRR) analyses, using Cohen's Kappa, on each topic to identify any areas that warranted further explanation or clarification. However, their agreement was always strong enough to continue without intervention.

The results show strong IRR between the coders. As a rule of thumb values of Kappa from 0.40 to 0.59 are considered moderate, 0.60 to 0.79 substantial, and 0.80 outstanding (Landis & Koch, 1977). All Kappas were greater than .6, indicating substantial agreement.

Sentiment results show that over half the comments, 51.5% were labeled as negative, 20% as neutral, 19% as positive and 3.5% as mixed. Correspondingly, the average sentiment score was slightly negative M = -1.32 (SD = 3.9). The fact that overall satisfaction was very positive, but the open-ended text was slightly negative suggests that people who were more dissatisfied provided more comments than people who were satisfied.

Figure 22 provides the frequency of each topic across all comments in order of most to least frequent. Discrepancies in the frequencies between coders were minimal; where present, an average percentage is provided.
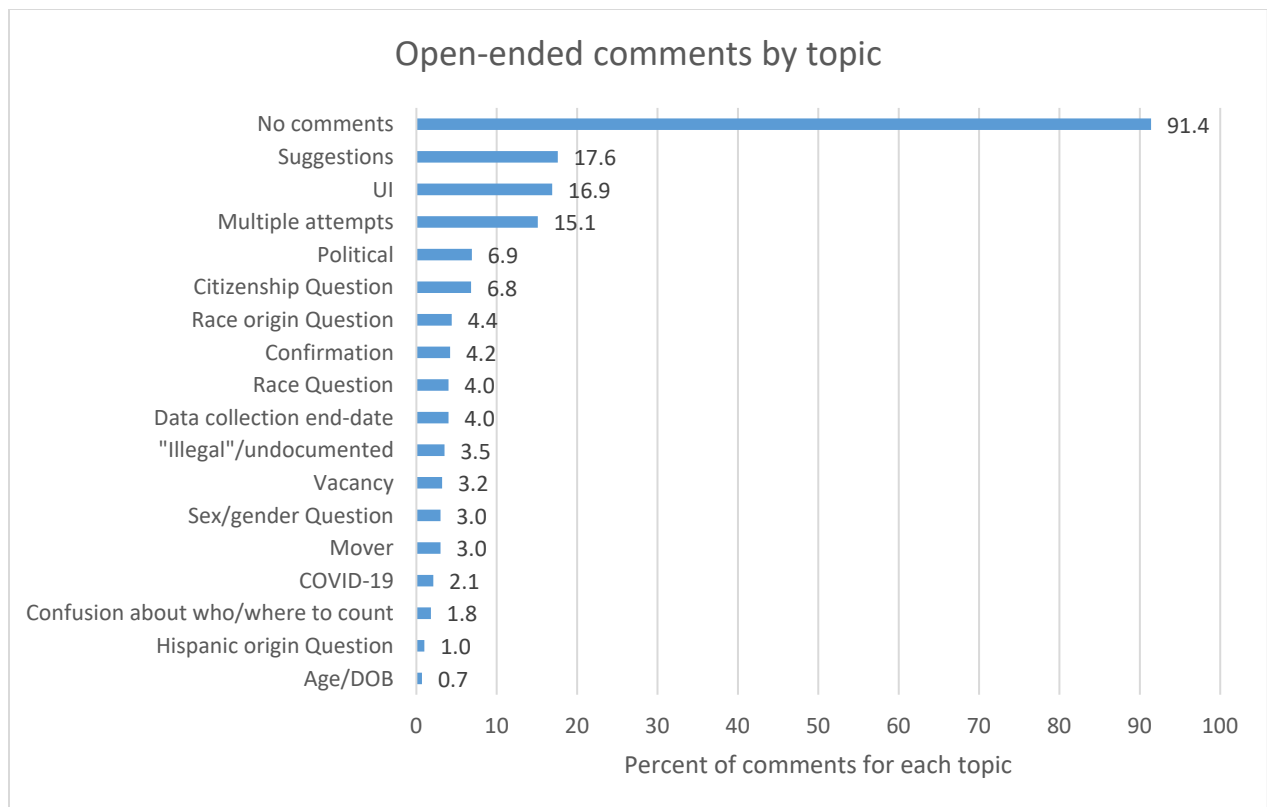
Open-ended comments by topic

Topic	Value
No comments	91.4
Suggestions	17.6
UI	16.9
Multiple attempts	15.1
Political	6.9
Citizenship Question	6.8
Race origin Question	4.4
Confirmation	4.2
Race Question	4.0
Data collection end-date	4.0
"Illegal"/undocumented	3.5
Vacancy	3.2
Sex/gender Question	3.0
Mover	3.0
COVID-19	2.1
Confusion about who/where to count	1.8
Hispanic origin Question	1.0
Age/DOB	0.7

Percent of comments for each topic

Figure 22. Open-ended comments by topic (unweighted data presented)
Source: 2020 Census User Experience Survey

Perhaps unsurprisingly, the most frequent theme was suggestions for improvement. If respondents want to effect change, this final open-ended text question would be the place. Some of the comments were about ways to make the online questionnaire more usable. One respondent wrote, "you should have a bar code to scan with the phone then you get the link where to fill out your form for verification" while another respondent wrote, "Once complete, I recall wanting confirmation that I was complete and my family was accounted for. It would be nice to receive an email confirmation stating that I had submitted an online census form." A third respondent wrote, "Would be great to be able to share link with other housemate to fill out on their own."

Others expressed opinions about questions that should or should not be included, e.g. "please ask about sexual orientation", "Should have asked ethnicity, age, if married, type of work and where born. Also parents place of birth" or "maybe don't ask about birthdates. Too much info." There were also multiple suggestions for and against citizenship questions and race question changes. Of note, respondents had already been provided with ample opportunity to provide comments on the census questions, and we did not deduplicate the comments provided in this last question with those provided earlier in the survey.

Next, people commented on user interface or user experience. Because this was the first time the public could respond to the decennial census online, some respondents wanted to praise the instrument, e.g. "doing the Census online was fast and efficient. I had no trouble entering my info and appreciated the design which made it very clear and easy to follow along." Others wanted to air grievances, e.g. "after half a dozen failed attempts online, I was able to complete the questionnaire on the phone with a helpful person" or "as I was filling out my questionnaire towards the end I noticed my last name was misspelled I went back to change it and couldn't change it…"

The third most frequent topic covered address-related issues (which may or may not reflect address inventory errors), potentially resulting in duplicate enumeration. Respondents expressed confusion and frustration about census takers showing up at their house several times when they had already completed the census online and/or receiving multiple census IDs in the mail. For instance, one respondent wrote:

> Please make sure that when you have filled out the census online you don't then have a census taker come to your door. You guys sent me at least five letters with my address in different variations all with different census ID numbers. It was very clear that we were only supposed to fill it out one time which I did and yet I still got a census taker at my house telling me I had to allow them to interview me since I hadn't completed my form when I already had. It should be your job to make sure each address only has one form and not a million.

Another said, "A man came today with an ID for the Census to ask me to do the census with him. Why? If I submitted it online. I couldn't find my confirmation number. But you know I filled it out. So I had to do it again." While some of these respondents left similar comments earlier in the survey, the fact that they mentioned these issues again at the end is a testament to their impact on the respondents' experience.

Respondents who were satisfied with their online experience as measured by the first question in the survey were less likely to report additional information in this last question compared with respondents who were neutral or dissatisfied by the experience ($\chi^2(1)$=189.3, p<.01). This finding along with the finding that the comments tended to be more negative suggest that it is important to put these comments in the larger context of their overall experience. These comments could suggest a path to making the 2030 Census better for those who found some fault with the 2020 Census.

5.9   Census breakoffs and not using the Census ID

While there were no technical issues with the online census questionnaire, internal census data showed that a higher percentage of respondents using the non-ID path did not get to the end of the census questionnaire and select "submit." The only difference in the online survey

for people who used their Census ID and for those who did not use their Census ID was the address screen.

To attempt to answer whether it was something about the address screen that caused respondents to break off later in the online questionnaire, we calculated an estimate of the percent of people who desired to comment on the "address question" by combining data from two questions (Q6 and Q43 see the attachment). For the group of non-ID respondents, we then compared the percent of respondents who commented on the address question and broke off against those who commented on the question but did not break off. If the rate of comments on the address screen was greater for the group who broke off, then we could conclude that the address screen was a factor in breakoffs. We did not find evidence to this effect. The average rate of commenting on the address screen was low at 3.2% and there was no difference in the rate between those who broke off and did not break off ($\chi^2(1)=1.2$, $p=.3$).

The User Experience Survey did not ask respondents explicitly why they broke off. However, breakoffs were related to a number of the survey measures.   In Section 5.2, we determined that overall satisfaction was lower for respondents who broke off and for those who did not use their Census ID. In Section 5.4, we documented the relationship between satisfaction with address screen and overall satisfaction with the 2020 Census. In Section 5.5 we documented that those who broke off reported that they thought they could click the link to get their Census ID more often than those who did not use their Census ID but completed the survey. In Section 5.7, we documented that respondents who broke off and who did not use their Census ID were more likely to report that they did not include everyone on their census questionnaire. While these relationships identify a connection between not using the Census ID and breakoffs, it is not possible to determine whether any of these factors encouraged the breakoffs or whether the people who break off tend to have these other characteristics.   We suspect it is the latter.

The reason we suspect that respondents who broke off in the 2020 Census would have broken off regardless of the online design, is because we found these same individuals more likely to break off in the User Experience Survey. The number of people who dropped off between the first question and this last question in the User Experience Survey was noteworthy at 14% using weighted data. There was a significant relationship between breakoffs in the 2020 Census and breakoffs in the User Experience Survey ($\chi^2(1)=800.4$, $p<.01$).   Respondents who broke off in the 2020 Census were more likely to break off in the User Experience Survey, suggesting that a breakoff might have more to do with the respondent's characteristic than any experience in the census.

Using a logistic model predicting a breakoff in the User Experience Survey, we found that respondents who used their mobile device to answer the online 2020 Census were more likely to break off in the User Experience Survey (F (1, 8056)=253.4, $p<.01$); respondents who did not use the Census ID in the 2020 Census were more likely to break off in the User Experience

Survey (F (1, 8056)=26.7, $p<.01$); and respondents who broke off in the 2020 Census were more likely to break off in the User Experience Survey (F (1, 8056)=17.8, $p<.01$). We did not find the geographic location or how soon the respondent answered the census to be significant in predicting breakoffs in the User Experience Survey. These findings imply that breakoffs (at least for the 2020 Census and for the User Experience Survey) had more to do with some of the respondent's characteristic than with the any usability issue in the interface.

6. Discussion

This report shares results from a follow up survey to measure satisfaction with the online 2020 Census.

Overall, the public who used the online questionnaire was satisfied with their experience. They liked that they could report online, and they liked the design. There were a few comments from satisfied respondents suggesting there might have been some errors with the Census Bureau address list inventory and the consequence of those errors. For example, it sounded like some addresses received multiple mailings because the mail pieces had slightly different addresses on each mail piece (this could occur if a multi-unit became a single-unit but the address list wasn't updated.) Since each address had a different Census ID, if the respondent only answered for one of the addresses, then a census taker would visit the residence to collect data for the "other address." That situation might have generated the comments in the User Satisfaction survey of census takers coming to the doors of homes that had responded online earlier. Aside from the address issues, some of these satisfied respondents also included comments about the questions themselves, especially the race and Hispanic origin questions.

For the small group of respondents who were not satisfied with their online questionnaire experience, we found differences by the type of respondent. For example, we found that respondents who used a mobile device to answer the census were less satisfied than those who used a PC; we found that respondents who broke off during their census were less satisfied than those who fully completed the census and submitted it; we found that non-ID respondents were less satisfied than those who used their Census ID; and we found that early responders were more likely to be satisfied with their experience than those who reported later.

With a few exceptions, the reasons reported for dissatisfaction between these groups did not appear to be related to the online questionnaire design, but rather with attitudes toward the census. For example, not wanting to share information with the government was reported more often by many of the same groups which were more likely to be dissatisfied in general.

We found no evidence that the address screen (or any of the other questions in the online 2020 Census) contributed the higher breakoff rate observed for respondents who did not use their Census ID. Instead, the results of this survey suggest that certain characteristics of the respondent may affect breakoff rates. Respondents who did not use their Census ID, who used

42

a mobile phone to answer the census, where were not satisfied with their 2020 Census experience, and who did not fully complete the census, were more likely to break off in the User Experience follow up survey.

Perhaps somewhat unexpected, these same respondents also reported that some people from their household may have been missed in the census. This surprising finding suggests a new strategy could be developed to help ensure no one is missed in the census. That is, a "profile" of a household at risk of under-coverage could be created – specifically, those who were not satisfied with the overall census experience, who used a mobile device and were in the non-ID path. Those characteristics could be used to flag the household for further probing on coverage. At minimum, oversampling these types of respondents for follow-up coverage operations should be tested in intercensal years. If results the finding is replicated, the system could be implemented in census operations.

The User Experience Survey also gathered information about how to improve the census in the future. Accessing the questionnaire and then having to start over (e.g. if they had to leave and come back) was a cause for dissatisfaction. Some respondents reported that they had to look up information, or that the census taker came when they'd already submitted the online form, or that they were sent multiple mailings. Allowing more flexibility to resume a census response later would most likely improve user satisfaction. It also appears that a small subsample of addresses might need to be deduplicated or corrected in the Census Bureau's address inventory to eliminate additional unnecessary visits by census takers or additional mailings.

While some eager respondents reported answering the census even before receiving any mail material, we found that respondents who reported later in the operation, and without a Census ID no longer had their material. Currently, almost all the mailed material arrives early in the operation. These data suggest that it might be worthwhile to test mailing a letter toward the end of the operation. At least for some respondents, that later mailed letter might assist them in completing the census with their Census ID.

We also collected a few suggestions for how to improve the census while expanding how our census is operationalized. Currently, the census is address based, where a mailing goes to an address and typically one respondent from that address answers for everyone who lives in that residence. Some respondents who indicated they had multiple residences commented that they would like to share information about all the residences where they lived in one census form, rather than in separate census forms. A few respondents suggested that nonrelated members of a residence be offered the ability to answer their own census form individually. While the latter is possible, the current version of the online form precludes sending parts of it to different people at an address. If someone wanted to fill out their census and the Census ID was already used for the residence, he or she would have needed to go to the website (using the URL provided in the mail materials or in 2020 Census ads). There was no

link sent by the Census Bureau in any email or text message in 2020. A future design could test asking for an email or phone number to directly contact other unrelated household members and have them respond with a direct ask rather than the current design.

Finally, respondents commented about the kind of data collected on the census. For instance, some critiqued the response choices for the existing questions, as well as the questions themselves, and others wanted more information to be collected. The comments and information learned from the User Experience 2020 survey can be addressed by testing the census content, design and operation and re-testing during the intercensal years.

7. Acknowledgments

We thank Frank McPhillips and the 2020 Non-ID Processing team in the decennial area of the U.S. Census Bureau for allowing us to work on this research and for being very open to our ideas on how to collect the data. We thank Rachel Gliozzi and Sarah Konya for selecting the sample, assigning time zones, weights and for the statistical review in this report. A special thanks goes to Shaun Genter and Angela O'Brien for coding the open-ended data.   We thank Qualtrics staff for showing us how to send text messages to our sample. Finally, we thank our report reviewers including Frank, Kristen Hearns, Daniel Donello, Venus Anderson, Jenny Childs, Joanne Pascale, and Paul Beatty.

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User Experience Survey (2020 Census)

`JS`

Q1 Thank you for agreeing to share your experience completing the 2020 Census questionnaire online. We estimate that this survey will take about 10 minutes. The results of this study will be used to evaluate the 2020 Census online questionnaire and to make future online questionnaires better.

Q2
AUTHORITY AND CONFIDENTIALITY

By law, the Census Bureau is required to keep your answers confidential (Title 13, United States Code, Section 9). We are conducting this voluntary survey under the authority of Title 13, United States Code, Sections 141 and 193. This collection has been approved by the Office of Management and Budget (OMB). This eight-digit OMB approval number, 0607-0971, confirms this approval. We are required to display this number to conduct this survey. We estimate that this survey will take about 10 minutes. Send comments regarding this estimate or any other aspect of this survey, including suggestions for reducing the time it takes to complete this survey to adrm.pra@census.gov. By proceeding with this study, you give your consent to participate in this study. The Privacy Act of 1974 (5 U.S.C. Section 552a) allows the sharing of information you provided with Census Bureau staff for the work-related purposes identified in this statement and the Privacy Act System of Records Notice (SORN) COMMERCE/CENSUS-5, Decennial Census Programs.

`JS` `X→`

Q3 How satisfied were you with the experience of filling out your 2020 Census questionnaire online?

○ Very satisfied (1)

○ Somewhat satisfied (2)

○ Neither satisfied nor dissatisfied (3)

○ Somewhat dissatisfied (4)

○ Very dissatisfied (5)

○ I don't remember (6)

○ Someone else filled out my census questionnaire (7)

Page Break

JS ⤬ X→

Q4 We'd like to contact the person who filled out your Census questionnaire to ask a few follow-up questions about their satisfaction with completing the census online.

What is the cell phone number of the person who filled out your census questionnaire?

☐   ###-###-#### (1) _____

☐   I'd rather not provide that information (2)

Page Break ———

Q5 Why were you dissatisfied? *Select all that apply.*

☐ I had problems answering some of the questions   (1)

☐ I had technical problems (2)

☐ It took too long to fill out   (3)

☐ I tried to use my Census ID and it didn't work (4)

☐ I couldn't find my Census ID (5)

☐ I didn't want to share this information with the government (6)

☐ I didn't want to fill out this information about other people in my household (7)

☐ Other, specify (8) _____

Page Break ——————————————————————————————

⤳ X→

Q6 Which questions did you have problems with? *Select all that apply.*

☐ Home address (1)

☐ Owner or renter (2)

☐ Number of people who live with you (3)

☐ Names (4)

☐ Phone number (5)

☐ Sex (6)

☐ Date of birth (7)

☐ Hispanic/Latino/Spanish ethnicity (8)

☐ Race   (9)

☐ How household members are related to each other (10)

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Q7 Here is an example of the address screen:

What were the problems with the home address question? *Select all that apply.*

☐ My address did not fit into the spaces provided (1)

☐ My residence has a non-standard address (2)

☐ I couldn't find how to enter my rural route address (3)

☐ My home doesn't have an address (4)

☐ I started typing my street address into the house number space and had to correct it (5)

☐ I wasn't sure which address to enter (for example, I sometimes live or stay more than one place) (6)

☐ Other, specify (7) _____

Page Break _____

Q8 Here is an example of the address screen:

What were the problems with the home address question? *Select all that apply.*

☐   My address did not fit into the spaces provided (1)

☐   My residence has a non-standard address (2)

☐   I couldn't find how to enter my rural route address (3)

☐   My home doesn't have an address (4)

☐   I started typing my street address into the house number space and had to correct it (5)

☐   I wasn't sure which address to enter (for example, I sometimes live or stay more than one place) (6)

☐   Other, specify (7) _____

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⤨ | X→

Q9 Here is an example of an address screen with a made up address:

What were the problems with the home address question? *Select all that apply.*

☐   The address on the paper materials I received in the mail did not match with the address I saw on the online form (1)

☐   The street address was wrong (2)

☐   The zip code was wrong (3)

☐   The state was wrong (4)

☐   It did not have the correct apartment/unit/lot number (5)

☐   I could not correct the address (6)

☐   Other, specify (7) _____

Page Break   ——

Display This Question:

If Which questions did you have problems with? Select all that apply. = Owner or renter

⤫ ⤬

Q10
Here is an example of the owner/renter question with a made up address.

What were the problems with the owner/renter question? *Select all that apply.*

☐   I did not understand the question (1)

☐   I live alone. Why do you ask about someone else in this household (2)

☐   I wasn't sure how to answer the question (3)

☐   Other, specify (4) _____

Page Break ————————————————————————————————————

Display This Question:

If Which questions did you have problems with? Select all that apply. = Number of people who live with you

⤭ ⤬

Q11
Here is an example of the number of people question with a made up address.

What were the problems with the question about the number of people who live with you? *Select all that apply.*

☐　　　I wasn't sure whether to include young children or babies (1)

☐　　　I wasn't sure whether to include college students   (2)

☐　　　I wasn't sure whether to include people who moved into or out of the home (3)

☐　　　Other, specify (4) _____

Page Break　————————————————————————————————

Q12
Here is an example of the name question.

What were the problems with the name question? *Select all that apply.*

☐   I didn't know everyone's full name (1)

☐   It was unclear if I could leave middle name blank or only use initials (2)

☐   One or more names didn't fit in the space available (3)

☐   There were not enough name spaces   (4)

☐   I had a spelling error and I could not correct it (5)

☐   I wanted to change, add, or remove a name and I could not do it (6)

☐   Other, specify (7) _____

Page Break   ———————————————————————————————

Display This Question:

If Which questions did you have problems with? Select all that apply. = Names

And Device = M

⤧ ✕→

Q13
Here is an example of the name question.

What were the problems with the name question? *Select all that apply.*

☐ I didn't know everyone's full name (1)

☐ It was unclear if I could leave middle name blank or only use initials (2)

☐ One or more names didn't fit in the space available (3)

☐ There were not enough name spaces   (4)

☐ I had a spelling error and I could not correct it (5)

☐ I wanted to change, add, or remove a name and I could not do it (6)

☐ Other, specify (7) _____

Page Break

⤭ ⤬

Q14
Here is an example of the phone number question.

What were the problems with the phone number question? *Select all that apply.*

☐   I didn't know whether to list my landline or my cell phone number (1)

☐   I didn't want to give the Census Bureau my phone number (2)

☐   Other, specify (3) _____

Page Break ——

Display This Question:

    If Which questions did you have problems with? Select all that apply. = Sex

Q15
Here is an example of the sex question with a made up name.

What were the problems with the sex question? *Select all that apply.*

☐   I wanted a response choice other than male or female (1)

☐   I thought I had already given this information (2)

☐   I didn't want to answer this question for someone else in my household (3)

☐   Other, specify (4) _____

Page Break   ───

⤬ ✕→

Q16
Here is an example of the date of birth question with a made up name.

What were the problems with the date of birth question? *Select all that apply.*

☐   I didn't know the date of birth   (1)

☐   I wasn't sure if I could estimate the date of birth (2)

☐   I wanted to leave it blank and it wouldn't let me move forward (3)

☐   The calculated age was incorrect (4)

☐   I tried to answer on my phone and I couldn't find the dates (5)

☐   The instructions in the link "If you do not know the date of birth, click here" were
confusing (6)

☐   Other, specify (7) _____

Page Break   ——

⤬ X→

Q17
Here is an example of the Hispanic/Latino/Spanish ethnicity question with a made up name.

What were the problems with the Hispanic/Latino/Spanish ethnicity question? *Select all that apply.*

☐ My race/ethnicity wasn't listed (1)

☐ My country wasn't listed (2)

☐ I did not like that the question separated Hispanics and Latinos from other groups (3)

☐ My children were born in the U.S. and I didn't know how to answer this question for them (4)

☐ Other, specify (5) _____

Page Break ————————————————————————————————

Q18
Here is an example of the race question with a made up name.

What were the problems with the race question? *Select all that apply.*

☐   My race wasn't listed (1)

☐   I received an error message and I wasn't sure what I did wrong (2)

☐   I wanted to select multiple races and I wasn't sure if I could (3)

☐   I do not identify with a particular ancestry or heritage (4)

☐   I had to type something into the heritage/ancestry question space to get to the next screen (5)

☐   I don't know my ancestry or heritage (6)

☐   I wasn't sure how far back to go with my heritage (7)

☐   I don't like separating people by race (8)

☐   Other, specify (9) _____

Page Break

Display This Question:

If Which questions did you have problems with? Select all that apply. = How household members are related to each other

Q19
Here is an example of the household relationship question with made up names.

What were the problems with the question about how household members are related to each other? *Select all that apply.*

☐ The list was too long (1)

☐ I did not like the response choices (2)

☐ I could not find a correct response choice (3)

☐ Other, specify (4) _____

Page Break ⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯

Q20 Which questions asked for information that you didn't want to share with the government? *Select all that apply.*

☐ Home address (1)

☐ Owner or renter (2)

☐ Number of people who live with you (3)

☐ Names (4)

☐ Phone number (5)

☐ Sex (6)

☐ Date of birth (7)

☐ Hispanic/Latino/Spanish ethnicity (8)

☐ Race   (9)

☐ How household members are related to each other (10)

☐ None of these (11)

Page Break

Q21 Which questions did you not want to fill out about other people in your household? *Select all that apply.*

☐   Home address (1)

☐   Owner or renter (2)

☐   Number of people who live with you (3)

☐   Names (4)

☐   Phone number (5)

☐   Sex (6)

☐   Date of birth (7)

☐   Hispanic/Latino/Spanish ethnicity (8)

☐   Race   (9)

☐   How household members are related to each other (10)

☐   None of these (11)

Page Break

Q22 What kind of technical difficulties did you have? *Select all that apply.*

☐ I got an error message that I couldn't fix (1)

☐ I got logged out of the questionnaire before I was finished (2)

☐ The questions loaded on the screen slowly (3)

☐ I wasn't sure if my answers were submitted (4)

☐ My address was wrong and I could not correct it (5)

☐ Other, specify (6) _____

Page Break

Q23 Why were you satisfied? *Select all that apply.*

☐ The questionnaire was short   (1)

☐ I liked that I could fill it out online (2)

☐ The website was easy to use (3)

☐ I knew the answers to the questions (4)

☐ I was glad to be counted (5)

☐ I liked the design (6)

☐ I liked that I could fill it out on my phone (7)

☐ Other, specify (8) _____

Page Break

X→

Q24

This question is about the screen where you entered your address. An example is below to remind you of what it looked like.

How easy or difficult was it for you to enter your address on that screen?

○ Very easy (1)

○ Somewhat easy (2)

○ Neither easy nor difficult (3)

○ Somewhat difficult (4)

○ Very difficult (5)

Page Break ─────────────────────────────────────

X→

Q25
This question is about the screen where you entered your address. An example is below to remind you of what it looked like.

How easy or difficult was it for you to enter your address on that screen?

○ Very easy (1)

○ Somewhat easy (2)

○ Neither easy nor difficult (3)

○ Somewhat difficult (4)

○ Very difficult (5)

Page Break

X→

Q26 What made entering the address on this screen difficult? *Select all that apply.*

☐ My address did not fit into the spaces provided (1)

☐ My residence has a non-standard address (2)

☐ I couldn't find how to enter my rural route address (3)

☐ My home doesn't have an address (4)

☐ I wasn't sure which address to enter (for example, I sometimes live or stay more than one place) (5)

☐ I started typing my street address into the house number space and had to correct it (6)

☐ Other, specify (7) _____

Page Break ——————————————————————————————————

X→

Q27 Earlier you reported: ${Q7/ChoiceGroup/SelectedChoices}.

Did you have any other difficulty with the address screen?

○ Yes (1)

○ No (2)

Q28 What was that?

_____

Page Break

X→

Q29
After you entered your address, it was reformatted based on U.S. postal standards. Here is an example of a reformatted address.
 In your opinion was your address reformatted correctly?

○ Yes (1)

○ No (2)

○ I don't remember the screen (3)

⤨ X→

Q30 What was wrong with the reformatted address the survey showed you? *Select all that apply.*

☐ The city was incorrect (1)

☐ ZIP Code was incorrect (2)

☐ The apartment number was incorrect (3)

☐ Other, specify (4) _____

Page Break ——

X→

Q31
The first screen of the census questionnaire asked you to log in. Here is an example of the log in screen.

How did you log in?

○ I entered an ID that was mailed to me or left at my door (1)

○ I clicked on, "If you do not have a Census ID, click here" (2)

○ I don't remember (3)

Page Break ──────────────────────────────────

X→

Q32
The first screen of the census questionnaire asked you to log in. Here is an example of the log in screen.

How did you log in?

○ I entered an ID that was mailed to me or left at my door (1)

○ I clicked on, "If you do not have a Census ID, click here" (2)

○ I don't remember (3)

Page Break

Q33 Where did you find your Census ID?

○ On a letter   (2)

○ On a postcard   (1)

○ On the paper questionnaire   (3)

○ On the notice of visit   (4)

○ I don't remember (5)

Page Break

X→

Q34 How easy or difficult was it for you to find your Census ID?

○ Very easy (1)

○ Somewhat easy (2)

○ Neither easy nor difficult (3)

○ Somewhat difficult (4)

○ Very difficult (5)

Page Break

Q35 What were your reasons for not entering a Census ID? *Select all that apply.*

☐ I never received a Census ID (1)

☐ I responded before I received a Census ID in the mail (2)

☐ The Census ID was too small to read (3)

☐ I couldn't find the Census ID on the letters or postcard (4)

☐ I no longer had the letters or postcard with my Census ID (5)

☐ I was away from home and didn't have my letters or postcard with me (6)

☐ I thought if I clicked on the link I could get my Census ID (7)

☐ Someone else in my household used my Census ID (8)

☐ I tried to use my Census ID and it didn't work (9)

☐ Other, specify (11) _____

☐ I don't remember (10)

Page Break

X→

Q36 How many times did you fill out or attempt to fill out a census questionnaire?

○ Only one time (1)

○ More than one time (2)

○ I don't remember (3)

X→

Q37 What were your reasons for filling out or attempting to fill out the Census questionnaire more than once? *Select all that apply.*

☐   I was helping a family member or friend with their form (1)

☐   I was trying to report a vacant property (2)

☐   My property has multiple homes on it (3)

☐   I wasn't sure if the Census Bureau received my answers (4)

☐   My answers were not saved, so I had to start over (5)

☐   I was trying to report that a unit/apartment no longer exits (6)

☐   I had problems with the Census questionnaire. Specify: (7)
_____

☐   Some other reason. Specify: (8)
_____

Page Break

X→

Q38 Did you include everyone living in your household on your questionnaire or did you only include some of the people?

○ I live alone and filled it out for myself (1)

○ I live with others and I included everyone (2)

○ I live with others but only included myself (3)

○ I live with others but only included some of the people I live with (4)

○ I don't remember (5)

X→

Q39 Did the other people also complete their Census form?

○ Yes (1)

○ No (2)

○ I don't know (3)

Page Break ─────────────────────────

X→

Q40 In the end, were you able to finish your Census questionnaire online?

☐ Yes, I finished and submitted my questionnaire online (1)

☐ No, I had a problem with the questionnaire online and wasn't able to fix it (2)

☐ No, I wanted a way to save my answers and come back, but I couldn't (3)

☐ No, I was too busy and decided not to finish (4)

☐ No, I didn't know the answers to some of the questions (5)

☐ No, I didn't want to answer some of the questions (6)

☐ No, some other reason. Specify (7)

_____

☐ I don't remember (8)

Page Break

Q41 Which questions didn't you know the answer to? *Select all that apply.*

☐   Home address (1)

☐   Owner or renter (2)

☐   Number of people who live with you (3)

☐   Names (4)

☐   Phone number (5)

☐   Sex (6)

☐   Date of birth (7)

☐   Hispanic/Latino/Spanish ethnicity (8)

☐   Race   (9)

☐   How household members are related to each other (10)

Page Break ————————————————————————————————

⤨ ⤬

Q42 Which questions did you not want to answer? *Select all that apply.*

☐ Home address (1)

☐ Owner or renter (2)

☐ Number of people who live with you (3)

☐ Names (4)

☐ Phone number (5)

☐ Sex (6)

☐ Date of birth (7)

☐ Hispanic/Latino/Spanish ethnicity (8)

☐ Race   (9)

☐ How household members are related to each other (10)

Page Break ――――――――――――――――――――――――――――――――――――――

⤨ ⤬→

Q43 Do you have any comments on any of the questions asked in the Census online questionnaire? If so, select the topic you wish to comment on below. If you have no additional comments, select no comments below.

☐ Home address (1)

☐ Owner or renter (2)

☐ Number of people who live with you (3)

☐ Names (4)

☐ Phone number (5)

☐ Sex (6)

☐ Date of birth (7)

☐ Hispanic/Latino/Spanish ethnicity (8)

☐ Race   (9)

☐ How household members are related to each other (10)

☐ No comments (11)

⤨ ⮕

Q44 Here is an example of the address screen:

What are your comments with the home address question? *Select all that apply.*

☐ My address did not fit into the spaces provided (1)

☐ My residence has a non-standard address (2)

☐ I couldn't find how to enter my rural route address (3)

☐ My home doesn't have an address (4)

☐ I started typing my street address into the house number space and had to correct it (5)

☐ I wasn't sure which address to enter (for example, I sometimes live or stay more than one place) (6)

☐ Other, specify (7) _____

Page Break ——

Q45 Here is an example of the address screen:

What are your comments with the home address question? *Select all that apply.*

☐   My address did not fit into the spaces provided (1)

☐   My residence has a non-standard address (2)

☐   I couldn't find how to enter my rural route address (3)

☐   My home doesn't have an address (4)

☐   I started typing my street address into the house number space and had to correct it (5)

☐   I wasn't sure which address to enter (for example, I sometimes live or stay more than one place) (6)

☐   Other, specify (7) _____

Page Break ———

Q46 Here is an example of an address screen with a made up address:

What are your comments with the home address question? *Select all that apply.*

- ☐ The address on the paper materials I received in the mail did not match with the address I saw on the online form (1)

- ☐ The street address was wrong (2)

- ☐ The zip code was wrong (3)

- ☐ The state was wrong (4)

- ☐ It did not have the correct apartment/unit/lot number (5)

- ☐ I could not correct the address (6)

- ☐ Other, specify (7) _____

Page Break ───

Q47

Here is an example of the owner/renter question with a made up address.

What are your comments with the owner/renter question? *Select all that apply.*

☐ I did not understand the question (1)

☐ I live alone. Why do you ask about someone else in this household (2)

☐ I wasn't sure how to answer the question (3)

☐ Other, specify (4) _____

Page Break ————————————————————————————————————

⤨ ⤫

Q48
Here is an example of the number of people question with a made up address.

 What are your comments with the question about the number of people who live with you? *Select all that apply.*

☐ I wasn't sure whether to include young children or babies (1)

☐ I wasn't sure whether to include college students   (2)

☐ I wasn't sure whether to include people who moved into or out of the home (3)

☐ Other, specify (4) _____

Page Break ——

Q49
Here is an example of the name question.

What are your comments with the name question? *Select all that apply.*

☐   I didn't know everyone's full name (1)

☐   It was unclear if I could leave middle name blank or only use initials (2)

☐   One or more names didn't fit in the space available (3)

☐   There were not enough name spaces   (4)

☐   I had a spelling error and I could not correct it (5)

☐   I wanted to change, add, or remove a name and I could not do it (6)

☐   Other, specify (7) _____

Page Break

Q50
Here is an example of the name question.

What are your comments with the name question? *Select all that apply.*

☐ I didn't know everyone's full name (1)

☐ It was unclear if I could leave middle name blank or only use initials (2)

☐ One or more names didn't fit in the space available (3)

☐ There were not enough name spaces   (4)

☐ I had a spelling error and I could not correct it (5)

☐ I wanted to change, add, or remove a name and I could not do it (6)

☐ Other, specify (7) _____

Page Break ───

Q51
Here is an example of the phone number question.

What are your comments with the phone number question? *Select all that apply.*

☐   I didn't know whether to list my landline or my cell phone number (1)

☐   I didn't want to give the Census Bureau my phone number (2)

☐   Other, specify (3) _____

Page Break

Q52

Here is an example of the sex question with a made up name.

What are your comments with the sex question? *Select all that apply.*

☐   I wanted a response choice other than male or female (1)

☐   I thought I had already given this information (2)

☐   I didn't want to answer this question for someone else in my household (3)

☐   Other, specify (4) _____

Page Break ⸻⸻⸻⸻⸻⸻⸻⸻⸻⸻⸻⸻⸻⸻⸻

⤨ ⤫

Q53

Here is an example of the date of birth question with a made up name.

What are your comments with the date of birth question? *Select all that apply.*

☐ I didn't know the date of birth (1)

☐ I wasn't sure if I could estimate the date of birth (2)

☐ I wanted to leave it blank and it wouldn't let me move forward (3)

☐ The calculated age was incorrect (4)

☐ I tried to answer on my phone and I couldn't find the dates (5)

☐ The instructions in the link "If you do not know the date of birth, click here" were confusing (6)

☐ Other, specify (7) _____

Page Break ————————————————————————

Q54

Here is an example of the Hispanic/Latino/Spanish ethnicity question with a made up name.

What are your comments with the Hispanic/Latino/Spanish ethnicity question? *Select all that apply.*

☐ My race/ethnicity wasn't listed (1)

☐ My country wasn't listed (2)

☐ I did not like that the question separated Hispanics and Latinos from other groups (3)

☐ My children were born in the U.S. and I didn't know how to answer this question for them (4)

☐ Other, specify (5) _____

Page Break ——————————————————————————————————————

Display This Question:

If Do you have any comments on any of the questions asked in the Census online questionnaire? If so,... = Race

⧖ ⤬

Q55
Here is an example of the race question with a made up name.

What are your comments with the race question? *Select all that apply.*

☐ My race wasn't listed (1)

☐ I received an error message and I wasn't sure what I did wrong (2)

☐ I wanted to select multiple races and I wasn't sure if I could (3)

☐ I do not identify with a particular ancestry or heritage (4)

☐ I had to type something into the heritage/ancestry question space to get to the next screen (5)

☐ I don't know my ancestry or heritage (6)

☐ I wasn't sure how far back to go with my heritage (7)

☐ I don't like separating people by race (8)

☐ Other, specify (9) _____

Page Break ————————————————————————————————

⤴ ✕→

Q56
Here is an example of the household relationship question with made up names.

What are your comments with the question about how household members are related to each other? *Select all that apply.*

☐ The list was too long (1)

☐ I did not like the response choices (2)

☐ I could not find a correct response choice (3)

☐ Other, specify (4) _____

Page Break ───

X→

Q57 Is there anything else about filling out the 2020 Census that you would like to share with us?

○ Yes (1)

○ No (2)

Q58 What else would you like to tell us?

_____

_____

_____

_____

_____

End of Block: Default Question Block